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The effect of CSR performance on firm value across global emerging markets

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Abstract

Drawing on institutional and transaction cost theory and the resource-based view of CSR, I posit that CSR performance across global emerging market companies is positively related to firm valuation. Using an unbalanced panel data approach for a sample with 3,800 firm-year observations representing 657 individual firms from 20 different countries that are classified as emerging markets according to the MSCI EM index during 2010-2016, I find that CSR performance, proxied by the average of the environmental and social pillar scores of the Thomson Reuters EIKON ESG rating database, positively relates to firm valuation, proxied by one-year ahead Tobin's q (TOBQ). Specifically, a one-standard-deviation increase in normalised CSR performance is – on average – associated with a 0.042-point increase in TOBQ. Compared to the mean value of 1.661 for TOBQ across the sample, this increase constitutes an economically significant share of around 2.5% of that value. This value-enhancing effect of CSR is driven by companies in Asia, while it is absent for companies located in EMEA and more pronounced for companies of the Americas. Additional analyses further reveal that while overall Thomson Reuters corporate governance score performance is positively related to firm valuation, the way in which these scores are constructed seems to fail to reflect important differences in the governance environment of emerging market companies compared to their developed market counterparts. Moreover, the number of sell-side analysts covering the stock of these companies is (next to CSR) positively related to firm valuation but has a mitigating effect on the positive relation between CSR performance and firm valuation.

Key words: Institutional theory, Transaction costs, Emerging Markets, CSR, Firm Value

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1. Introduction

Global institutional investors acting in the long-term interests of their beneficiaries increasingly incorporate environmental, social, and governance (ESG) aspects in their investment analyses and portfolio selection processes, next to traditional economic factors. Corporate social responsibility (CSR) closely relates to the environmental and social non-financial performance dimensions and is often defined as a mechanism to address externalities that firms generate in the process of pursuing profit maximization that are not internalized by shareholders (Lian and Renneboog, 2017). To incorporate ESG aspects into their investment decisions, portfolio managers often rely on information intermediaries such as ESG rating agencies or analyst reports. According to Morgan Stanley Capital International (MSCI) ESG, for example, 31 of the top 50 institutional money managers worldwide use their research to integrate CSR factors into their investment decisions (Kim, Li, and Li, 2014).

From a firm perspective, the central theme academics inspect is the relationship between corporate social performance (CSP) and corporate financial performance (CFP). The initial debate revolves around two contradicting views of the firm and the function of CSR, the resource-based view and the negative view. The resource-based view states that CSR investments create necessary resources and stakeholder support (e.g. Jones, 1995), that translate into sustainable long-term competitive advantage and thus higher financial performance through more favourable return and/or risk profiles (e.g. Waddock and Graves (1997); Russo and Fouts, 1997; Deng, Kang, and Low, 2010). On the other hand, the negative view suggests that companies should not internalize the negative externalities they exert on other stakeholders than shareholders, as doing so conflicts the sole responsibility of firms to maximize shareholder value (e.g. Pigou, 1920; Friedman, 1970).

The rationale of the resource-based view is that CSR investments create intangible assets through various channels. Continuous stakeholder-management relationships induced by CSR properly incentivizes managers to focus on financial goals (Hill and Jones, 1992; Jones, 1995), builds moral capital or goodwill amongst stakeholders in good times to draw on in worse times (e.g. Godfrey, 2005), stipulates reporting information quality and disclosure (e.g. Gelb and Strawser, 2001) and builds a reputation for quality, reliability, and trust in the market (McWilliams and Siegel, 2001). Facilitated by the severe erosion of investor wealth and numerous shutdowns of businesses during crises periods and their frequent occurrence, the research on CSR activity shifted away from an initial return focussed debate towards the effect

of CSR on firm risk characteristics. Specifically, recent studies on the CSP CFP debate focus on stock price crash risk (Kim et al., 2014; Diemont, Moore, and Soppe, 2016; Zhang, Xie, and Xu, 2016; Lee, 2016; Utz, 2017) and span over stock market boom periods (1995–1999 and 2003–2007) and/or burst periods (2000–2002 and 2008–2009). At the same time, studies point out that institutional differences between countries and regions drive the observed differences in the extent, content, and communication intensity of CSR between companies (e.g. Liang and Renneboog, 2017).

Institutions, or specialized intermediaries in an economy emerge in response to mitigate the various transaction costs associated with market failures in the economic exchange process arising from negotiating, monitoring, and enforcement costs (Coase, 1937; Williamson, 1975, 1985; Jones and Hill, 1988). Formal market-supporting institutions, such as capital markets, regulatory systems, and contract enforcement mechanisms across global emerging markets are generally weaker compared to developed markets (e.g. Meyer, Estrin, Bhaumik, and Peng, 2009). This results in business being guided rather by informal institutions such as business groups, family connections and government contacts, which often creates governance concerns via family- or government-controlled companies and ultimately hinders the proper protection of minority shareholder rights (Young, Peng, Ahlstrom, Bruton, and Jiang, 2008). That is why investors taking a minority stake in emerging market companies endure higher transaction and monitoring costs of their investments compared to equivalent investments in developed markets (e.g. Claessens, Djankov, and Lang, 2000; Faccio, Lang, and Young, 2001).

Khanna and Palepu (1997, 2011) argue that in emerging market companies must develop strategic responses to overcome undue transaction costs and restricted access to resources caused by the absence of market-supporting institutions. Strategic responses could be to build a reputation of treating minority shareholders fairly (Gomes, 2000), strategic alliances with foreign multinationals from countries with strong institutions (Siegel, 2009), geographical clustering to create local business environments (Karna, Täube, and Sonderegger, 2013), expanding the business abroad to access more efficient and munificent foreign markets (Luo and Tung, 2007), or signalling commitment to fair practices by voluntary cross-listings on exchanges with strong monitoring standards (Young et al., 2008). The very recent study of El Ghoul, Guedhami, and Kim (2017) finds that CSR commitment is another strategic response to reduce transaction costs and to tap additional resources. Specifically, they show empirically that CSR performance is more positively related to firm valuation in countries with lower market-supporting institutions.

While CSR awareness has been traditionally attributed to be confined to developed societies/economies in the academic landscape (e.g. Arya and Zhang, 2009), momentum is pronouncing the relevance of CSR across emerging markets. A recent CEO study of Lacy and Hayward (2011) on the topic of sustainability in partnership with United Nations Global Compact (UNGC) shows that more CEOs of emerging market companies describe sustainability as important to their company's future success compared to developed market companies. The McKinsey Global Institute (2010) further argues that the demand for growth capital across global emerging markets is expected to keep surging for the foreseeable future, so emerging market companies keep on seeking investments from ESG sensitive investors abroad. Moreover, increasingly international supply chains and business ties between emerging and developed market companies draw attention from Western societies to the responsibility of emerging market suppliers of Western companies (e.g. Bogdanich, 2008; Perez-Batres, Miller, and Pisani, 2010). Moreover, the emergence of emerging market multinationals such as Embraer, Tata, Alibaba and Haier gain considerable world-wide attention and increasingly fall under the same CSR scrutiny as their Western counterparts.

Combining the recent finding of El Ghouli et al. (2017) that CSR performance is more positively related to firm valuation in countries with lower market-supporting institutions with the fact that global emerging markets – while cross-country differences exists – are characterized by weaker institutions and the ongoing societal and organizational shift towards more CSR sensitivity in these societies, theory strongly points towards a positive relationship between CSR performance and firm value across global emerging market firms as a group. Yet, there is no previous study examining the CSP and CFP debate in the context of global emerging markets as a group. This is probably due to the failure to recognize institutional commonalities across global emerging market companies, ESG data scarcity in emerging markets and the extremely volatile capital markets in the last decade steering the focus on risk characteristics. This thesis closes this research gap by examining the research question whether CSR performance across global emerging market companies increases their firm valuation.

In the main empirical analysis, I use an unbalanced panel data approach for a sample of 3,800 firm-year observations representing 657 individual firms from 20 different countries that are classified as emerging markets according to the MSCI EM index during 2010-2016. In line with previous research (e.g. Kim et al., 2014; El Ghouli et al., 2017; Utz, 2017), CSR is defined as the average of the Thomson Reuters EIKON environmental and social pillar scores. I use Tobin's q (TOBQ), which is the market value of the firm's assets divided by the replacement

value of the firm's assets as firm value proxy for financial performance, as it should capture return and risk effects of CSR in aggregate (e.g. Gompers, Ishii, and Metrick, 2003; El Ghoul et al., 2017). I follow previous studies in controlling for return on assets, firm size, leverage, GDP of the respective head quarter country, and firm age. I find that CSR performance positively relates to firm valuation. Specifically, a one-standard-deviation increase in normalised CSR score performance is – on average – associated with a 0.042-point increase in one-year ahead TOBQ. A robustness check of year-by-year regressions with ordinary least squares (OLS) estimates confirms this result. However, this result is largely driven by the Asian companies representing around 60% of the sample. Companies located in EMEA representing 20% of the sample do not show any value enhancing effect of CSR and companies located in the Americas representing the remaining 20% of the sample show an especially strong value enhancing effect of CSR.

Additionally, this thesis inspects the role of firm-level governance on firm valuation in emerging markets. Institutional theory suggests that the need for effective internal corporate governance is especially high in countries where institutional voids inhibit market oversight or external governance mechanisms (Ding, Wi, Li, and Jia, 2010). However, the ESG rating scores of Thomson Reuters are constructed via a consistent criteria list which is based on the predominant corporate governance model of developed markets, where principal-agent (PA) problems between owners and managers receive most attention (Jensen and Meckling, 1976). In contrast, concentrated ownership of states and families in emerging markets is often the root cause of expropriation of minority shareholders, which Young et al. (2008) term principal-principal (PP) problems. A dissection of the overall governance score into its three categories management, shareholders, and CSR strategy shows while the consolidated corporate governance performance measure has a positive effect on firm value, there is some evidence for a negative effect of the Shareholders score. This finding supports the view of Faccio et. al (2001) that power towards shareholders vs. managers in emerging markets might not be as positive as is believed according to developed markets theory.

Furthermore, this thesis inspects the role of sell-side analyst coverage on CSR and firm valuation in an additional analysis. Using the same unbalanced panel approach for a reduced sample with 3,504 firm-year observations reveals that analyst coverage is positively related to firm valuation – next to CSR. Including an interaction term further shows that the number of analysts has a mitigating effect on the positive relationship between CSR and firm value, while the previously found positive effects stay significant. Taken together, these findings support the

view of Chung and Jo (1996) and Yu (2008), that equity analysts act as an external monitor and help reduce transaction costs by reducing agency conflicts, disciplining managers and steering investor attention towards important information. While analysts seem to provide some additional social pressure on firms to reduce their irresponsible activities and signal trust in the proper governance of the firm, they rather complement than substitute ESG rating agencies as information intermediaries by focussing on financial reporting irregularities.

This thesis enhances the current academic debate and is highly relevant for practitioners such as portfolio managers of institutional investors and managers. From an academic perspective, the main analysis of my thesis contributes to the current stance of research by revitalizing the deadlocked CSP and CFP debate in developed markets. First, it is the first study to provide empirical evidence for the resource-based view of CSR in the so far untouched post-financial crisis period of 2010-2016. Second, it is the first study that examines the link between CSR performance and firm value across global emerging markets. It implies for future research that CSR awareness is present across global emerging markets and that superior CSP enhances firm value for global emerging market companies as a group. At the same time, it shows that large regional differences in this link do exist and that there is a need for more extensive ESG data to conduct meaningful statistical analyses on regional level.

Furthermore, it provides confirmatory evidence for the proposed link between institutions and transaction costs proposed by El Ghouli et al. (2017) and implies that future research on CSR should recognize that the effectiveness of CSR performance channels depends on the institutional context of the economy where the company is located in. The additional analysis on firm-level governance ratings implies that future research on corporate governance should recognize that institutions, amongst other factors, effect the governance requirements of companies and the ways in which those can be resolved. Finally, the additional analysis on the role of sell-side analysts implies that future research should recognize that both analyst coverage and CSR performance help reduce transaction costs and tap additional resources in emerging markets and are complementarily valued by the market.

From a practitioner's perspective, my findings imply that portfolio managers of institutional investors allocating capital to emerging market equities should pick stocks of companies with strong future CSR capabilities, large analyst coverage, and conduct firm-level governance analyses considering PP problems rather than (relying on generic governance scores based primarily on) PA problems and generally treat Thomson Reuters EIKON ESG scores in their investment decisions with caution. My support for the resource-based view calls managers of

emerging markets companies to strive for CSR excellence to reduce transaction costs, tap additional resources, and access desired growth capital.

This thesis is structured as follows. Section two presents the academic literature relating to the research question at hand in more detail. Additionally, four hypotheses relating to the research question above are developed. Section three details the sample construction process and the methodology used to empirically test the hypotheses developed in section two. Section four presents the descriptive statistics of the constructed sample and the inferential statistics of the empirical tests of the four hypotheses. Furthermore, a robustness check for the baseline hypothesis is conducted. In section 5, the statistical results are interpreted in the context of the introduced literature and limitations of the analysis are discussed. Section 6 synthesizes the previous sections by concluding on the implications of this study and provides motivation for future research.

2. Literature Review

The literature review is structured as follows. In the first section, often-misused terminology in the CSR realm is clarified. In the second section, an overview of the origins and subsequent developments of the CSP and CFP debate and recent advancements in ESG data availability is presented. In the third section, the literature on CSR in the societal, organizational, and institutional context of emerging markets is reviewed. The fourth and last section combines the previously presented insights on the CSP and CFP debate and the institutional context of emerging markets to hypothesize the effect of CSR on firm value across global emerging markets. Furthermore, it elaborates on the role of firm-level governance, sell-side analysts, and institutional ownership on this relationship.

2.1 CSR in the context of SRI and ESG

There is an increasing trend of institutional investors acting in the long-term interests of their beneficiaries towards investment strategies often grouped into and termed Sustainable, Responsible and Impact (SRI) investing (USSIF, 2016). SRI investing includes the incorporation of environmental, social, and governance (ESG) aspects in the investment analyses and portfolio selection processes of institutional investors, next to traditional economic factors. On top of that, institutional investors increasingly engage in active ownership, i.e. they promote ESG amongst their portfolio companies either by informal influence or formally by filing or co-filing of shareholder resolutions concerning ESG issues (Dimson, Karakaş, and Li, 2015). In its 2016 report, USSIF exemplarily shows the immense growth of SRI investing. US-domiciled assets under management using SRI strategies grew by 33% from 2014 to 2016 to USD 8.72 trillion, which is a 14-fold increase since 1995. The SRI assets in 2016 represent nearly 22% of all tracked U.S. assets under professional management.

The increase in SRI investing can be observed not only in the U.S., but also internationally. By signing the Principles of Responsible Investments (PRI), who were developed by institutional investors in conjunction with the United Nations Secretary-General, investors voluntarily commit to promote ESG aspects among all companies they are invested in. On its website it states that the assets managed by institutional investors which committed to the PRIs amount to around USD 80 trillion and nearly 2250 signatories spread over all continents in 2018 (UNPRI, 2018). This illustrates that ESG screening and shareholder activism towards more

sustainable business practices of investees has become mainstream practice. Looking at this trend from a company's point of view, ESG excellence has never been more vital in attracting capital. Therefore, it is no surprise that especially large multinational enterprises (MNEs) of both developed and developing countries have been increasingly incorporating interests of a variety of stakeholders in their strategic decision-making processes over the last decade (Liang and Renneboog, 2017).

Corporate social responsibility (CSR) is often defined as a mechanism to address externalities that firms generate in the process of pursuing profit maximization that are not internalized by shareholders (Lian and Renneboog, 2017). These externalities span over a variety of activities contained in the environmental and social pillars of ESG, but are conceptually different from the governance pillar. This is due to the firm-internal nature of corporate governance structures which do not directly create externalities of society's concern, but directly affect shareholders (Flammer, 2013). To illustrate, firms polluting rivers nearby communities use as drinking water (environmental) or making use of child labour in less developed countries (societal) immediately and negatively affect the wider society. However, firms having fewer independent directors in their board primarily concern shareholders of these firms, not society at large.

CSR definitions further pronounce that the need for companies to address externalities arises from the economic, legal, ethical, and discretionary expectations that society places on them (Kim et al., 2014; Liang and Renneboog, 2017). Societal expectations on firms to act responsibly have increased significantly over time and consequently, corporate social responsibility has increasingly become a mainstream business activity (Kitzmueller and Shimshack, 2012). CSR activities aimed at fulfilling these expectations span over a multitude of dimensions, such as providing employee benefits, investing in environmentally-friendly production processes, preventing the use of child labour along the supply chain, supporting NGOs or establishing foundations specialized in cultural and educational support in less developed countries (e.g. Liang and Renneboog, 2017).

In short, ESG summarizes the non-financial performance dimensions of a firm about which SRI investors care. CSR can be viewed as a subpart of ESG relating to the environmental and social dimensions which affect society at large, while governance issues are of more firm-internal nature. After having established an understanding of the differences in perspectives and concepts between SRI, ESG, and CSR, I turn to the academic research on these topics. Due to the conceptual differences in CSR and the governance categories of ESG, I separately elaborate on these issues in the following sequences. I primarily inspect the debate that has been receiving

the greatest attention, which is the relationship between corporate social performance (CSP) and corporate financial performance (CFP). In additional analyses, I further inspect the role of internal corporate governance, the role of sell-side analysts, and the role of institutional ownership in the relationship between CSP and CFP across global emerging markets. In the next sequence, I provide an overview of the origins and subsequent developments of the CSP and CFP debate.

2.2 The long-standing debate on CSP and CFP

2.2.1 *CSR and stock performance*

There are two general contradicting standpoints regarding the role of CSR. On the one hand, the resource-based view states that CSR investments create necessary resources and stakeholder support (e.g. Jones, 1995) that can translate into sustainable long-term competitive advantage and thus higher financial performance (e.g. Waddock and Graves (1997); Russo and Fouts, 1997; Deng, Kang, and Low, 2010). On the other hand, the negative view suggests that companies should not internalize the negative externalities they exert on other stakeholders than shareholders, such as communities, employees, or the environment. According to them, doing so would conflict the sole responsibility of firms, which is to maximize shareholder value (e.g. Pigou, 1920; Friedman, 1970). Theoretical arguments through which exact channels CSR might lead to either superior or inferior stock performance are manifold.

Proponents of the resource-based view argue that continuous stakeholder-management relationships induced by CSR serve as monitoring and enforcement mechanism that focuses managers on financial goals (Hill and Jones 1992; Jones 1995). This is related to the good-governance view according to which CSR investments are a signal of properly incentivized and governed managers who contribute to better firm performance (Ferrell, Liang, and Renneboog, 2016). According to the internal resources/learning perspective CSR activities may help to build managerial competencies because it necessitates significant employee involvement, organization-wide coordination, and a forward-thinking managerial style (Shrivastava 1995). Managers who acquired these capabilities are better equipped to adapt to external changes, turbulences, and crises (Russo and Fouts, 1997). According to the reputation perspective, CSR acts a tool to build a positive image with customers, investors, bankers, and suppliers which facilitate their access to capital (Fombrun and Shanley 1990) and builds a reputation for quality, reliability, and trust in the market (McWilliams and Siegel, 2001).

Proponents of the negative view argue that CSR expenditures are simply as a waste of scarce resources, as they increase operating costs, represent a manifestation of agency problems, are time-consuming and distract managers from their core responsibilities (Jensen and Meckling, 1976; Bénabou and Tirole, 2010). Empirical studies find that managers benefit at the expense of shareholders by engaging in inappropriate CSR conduct which is self-serving as they choose projects which earn them a good personal reputation and desired social networks among key stakeholders, rather than supporting the firm (Krueger, 2015). Moreover, managers are inclined to overinvest in CSR to enhance their firm's sustainability rating to reduce the probability of their replacements in the future (Barnea and Rubin, 2010). Other studies criticize the resource-based causality and propose an inverse positive relationship, meaning that only well-performing firms can afford to invest in CSR (e.g., Hong, Kubik, and Scheinkman, 2012). They reason that deciding on CSR expenditures often represents an area of relatively high managerial discretion, so that the initiation or cancellation of voluntary social and environmental policies depends to a large extent on the availability of excess funds (McGuire, Sundgren, and Schneeweis, 1988).

Empirically, these early studies often compare returns of sustainable mutual funds or sustainability indices with their conventional counterparts. However, these studies fail to establish an academic consensus. Some studies find little support (e.g. Cummings, 2000) for superior risk-adjusted returns, some studies contest no significant differences between them (e.g. Sauer, 1997) and some find inferior returns for sustainable firms (e.g. Brammer, Brooks, and Pavelin, 2006). Despite the absence of an academic consensus, the continuing above-described trend of increasing capital commitments to SRI investment vehicles favours the view that CSR has some form of value. Facilitated by the severe erosion of investor wealth and numerous shutdowns of businesses during crises periods and their frequent occurrence in more than ever interconnected global financial markets such as the recent sequence of the 1997 Asian financial crisis, the Nasdaq internet bubble in 2000 and the global financial crisis in 2008, the research on CSR activity shifted away from the deadlocked return debate towards the effect of CSR on firm risk characteristics.

2.2.2 CSR and firm risk characteristics

Proponents of the resource-based view argue that – even though CSP might not directly impact observable returns – socially responsible firms have a more favourable risk profile (Goss and Roberts, 2011). Empirical studies find that CSR performance is on average associated with lower idiosyncratic risk and lower probability of financial distress (Lee and Faff, 2009), lower

cost of capital (e.g. El Ghouli, Guedhami, Kwok, and Mishra, 2011), lower stock price crash risk (e.g. Kim et al., 2014; Utz, 2017), and increased analyst following and access to institutional capital (Bushee and Noe, 2000). Two literature streams to provide rationale in favour of this risk mitigation view of CSR evolved: higher information quality and the building of moral capital.

Studies supporting the information quality rationale find that socially responsible firms suffer less from earnings management, have higher financial reporting quality, less overconfident managers, and disclose more financial information (Gelb and Strawser, 2001; Kim, Park, and Wier, 2012; McCarthy, Oliver, and Song, 2017). Moreover, Waddock and Graves (1997) argue that CSR investments can have a signalling effect of manager's commitment to reduce principal-agency conflicts which reduces the perceived risk of investors.

Studies relating to moral capital building argue that CSR investments can reduce risk exposure through insurance-like protection in bad times by generating moral capital or goodwill among stakeholders in good times (e.g. Godfrey, 2005; Godfrey, Merrill, and Hansen, 2009; Attig, El Ghouli, Guedhami, and Suh, 2013). In this context, moral capital spans over a variety of intangible internal resources such as effective employee commitment, legitimacy among communities and regulators, trust among partners and suppliers, credibility and enhanced brand equity among customers, and more attractiveness for investors (Godfrey, 2005). Attig, Cleary, El Ghouli, and Guedhami (2014) support this view by finding empirically that responsible firms are less exposed to legal, regulatory, and reputational risks and ultimately exhibit more stable cash flows. Flammer (2013) finds that environmental commitments alleviate the consequences of bad news event. Lins, Servaes, and Tamayo (2017) find that socially responsible firms benefitted from higher levels of trust during the global financial crisis, translating into less severe stock return drops, higher profitability, growth and sales per employee and better access to debt.

Proponents of the negative view on CSR disagree and state that management may use highly discretionary CSR activities to conceal firm misbehaviour, which increases financial risk once this bad news hoarding is detected (Hemingway and MacLagan, 2004). Opposing the information quality argument, other studies find empirical support for a positive relationship between CSR activities and earnings management (e.g. Petrovits, 2006; Prior, Surroca, and Tribó, 2008).

2.2.3 Advancements in ESG data quality/availability

Due to the increasing demand for reliable and extensive information on ESG and CSR of investors, several data providers collect firm-level ESG information and construct scores to make firms comparable along these non-financial performance dimensions. The ESG rating agencies provide rating services, research, compliance and consulting services analogous to those provided by credit rating agencies – but with a focus on ESG criteria. The three most relevant ESG rating providers are Thomson Reuters EIKON (including formerly ASSET4), MSCI ESG (including formerly Kinder, Lydenberg, and Domini Research & Analytics (KLD)), and Bloomberg. Since the past decade, the ESG rating industry has been growing tremendously and it has been consolidating. This is no surprise as addressing ESG issues has become a risk-management concern for investors, shareholder, governments and firms and academics have been increasingly focussing on ESG aspects (Kitzmueller and Shimshack, 2012). Thereby, databases increase significantly in value with their coverage. Consolidating databases creates positive synergies or might have even been necessary to survive in this data and research-driven industry.

The emergence of more and more comprehensive ESG rating databases also changed the academic landscape considerably. Early studies compared SRI indices, SRI investment funds, or self-constructed ESG portfolios or funds with their conventional counterparts in terms of risk-adjusted returns. The researchers mostly used econometrical frameworks like cross-sectional Fama and MacBeth regressions or some Capital Asset Pricing Model (CAPM) extension like the Carhart four-factor model. In comparison to these regression techniques with binary ESG inclusion dummy variables, ESG rating scores have the advantage that they provide scalable and firm-specific data, which results in large panel data sets (Halbritter and Dorfleitner, 2015). That is why most recent research published in leading journals relating to the CSR literature stream in advanced markets relies on these ESG ratings and panel data statistics (e.g. Kim et al., 2014; Utz, 2017). For emerging markets, the availability of large-scale data over long periods of time is substantially less extensive as these rating providers have only been gradually extending their coverage of firms from developed to emerging markets. However, there are very recent papers who do exploit these advancements in ESG data availability for individual emerging markets and construct data panels (Lee, 2016; Zhang, Xie, and Xu, 2016).

It is important to recognize that independent of the individual aspects considered and methodologies used, there is still no consensus on the relationship between CSP and CFP. However, there is consensus amongst academics that the extent, content, and communication

intensity of CSR differs significantly not only across corporations, but also across regions, and countries (Maignan and Ralston, 2002). Therefore, before conducting an empirical study across global emerging markets, it is essential to review the societal, organizational, and institutional context of emerging versus developed markets.

2.3 CSR in the societal, organizational, and institutional context of emerging markets

2.3.1 *Cross-country differences in CSR activity*

While CSR studies initially focussed on developed markets, emerging markets have been increasingly receiving attention (e.g. Welford, 2004; Baughn, Bodie, and McIntosh, 2007; Qu, 2007). Still, the empirical research on the impact and relevance of corporate social responsibility in emerging markets is still very limited (Arya and Zhang, 2009). The few early studies are sceptical towards CSR sensitivity in emerging markets. They claim that emerging market companies engage less in CSR activities than developed market companies due to lower economic development levels (e.g. Welford, 2004). The reasoning usually posits that lower income levels, less awareness of and sophistication about social and environmental problems, lower levels of product variety, and greater emphasis on the basic value proposition of products all contribute to less CSR sensitivity in emerging markets (e.g. Baughn et al., 2007). Moreover, - with reference to the inverse positive relationship of CSP and CFP proposed by McGuire et. al (1988) – they argue that emerging market firms might have less availability of excess funds and therefore simply not the “luxury” to engage in CSR.

Research shifted subsequently towards the determinants of observed cross-country differences in CSR activity. For example, Liang and Renneboog (2017) find that firms from common law countries have lower CSR ratings than companies from civil law countries. They further find that the legal origin is a stronger explanator of the cross-country variation in CSR than previously proposed firm or country factors such as ownership concentration, political institutions, and globalization. Attig, Boubakri, El Ghouli, and Guedhami (2016) find that for a large sample of firms from 44 countries, firm internationalization is positively related to their respective CSR ratings. Li, Fetscherin, Alon, Lattemann, and Yeh (2010) find that for the 105 largest MNEs in Brazil, Russia, India, and China (BRIC), a country’s governance environment is the most important driving force behind CSR communication intensity.

All these studies have in common that they draw on institutional theory to explain cross-country CSR variation. According to Hoskisson, Eden, Lau, and Wright (2000), institutional theory has become the predominant theory for analysing management decisions in emerging markets. Therefore, I review the literature on institutions in emerging markets next, to examine whether there are common institutional features that characterise and distinguish global emerging markets from global developed markets. Specifically, I provide theoretic rationale to conduct CSR studies for global emerging markets as a group.

2.3.2 Institutional context and commonalities in emerging markets

Institutions, or specialized intermediaries in an economy emerge in response to mitigate the various transaction costs associated with market failures in the economic exchange process arising from negotiating, monitoring, and enforcement costs (Coase, 1937; Williamson, 1975, 1985; Jones and Hill, 1988). These institutions shape the general business environment such as political, economic, social, legal, and technological conditions and support the effective functioning of the market by allowing firms and individuals to trade without incurring undue costs or risks which in turn determine the outcomes and effectiveness of organizations (Meyer et al., 2009).

Formal institutions comprise the functioning of capital markets and the enforcement of laws, and regulations regarding e.g. accounting requirements, information disclosure, and securities trading. Informal institutions comprise relational ties, business groups, family connections and government contacts (Young et al., 2008). According to leading scholars (e.g. North, 1990, 1994; Peng and Heath, 1996; Meyer et al., 2009), emerging markets across the globe – while large cross-country differences exist – generally have less efficient formal institutions in promoting impersonal exchanges between economic actors, resulting in business being guided to a larger degree by informal institutions. This, in turn, has considerable consequences on the general business environment in these markets. In emerging markets, principal-principal (PP) conflicts between controlling shareholders and minority shareholders are more important and pronounced rather than traditional principal-agent (PA) conflicts examined in most research dealing with developed markets (Young et al., 2008). Agents (top managers) are also (or represent) often the controlling shareholders via pyramid ownership structures and therewith can circumvent monitoring mechanisms such as the board of directors (Dharwadkar, George, and Brandes, 2000).

These PP conflicts manifest themselves via concentrated firm ownership through families or the state, and often result in weak governance indicators such as fewer publicly traded firms (La Porta, Lopez-de-Silanes, and Shleifer, 1999), lower firm valuations (Claessens, Djankov, Fan, and Lang, 2002), inefficient strategy (Filatotchev, Wright, Uhlenbruck, Tihanyi, and Hoskisson, 2003), less information contained in stock prices (Morck, Yeung, and Yu, 2000), less investment in innovation (Morck, Wolfenzon, and Yeung, 2005). Most importantly, they ultimately increase the risk of expropriation of minority shareholders (e.g. Claessens et al., 2000; Faccio et al., 2001). Johnson, Boone, Breach, and Friedman (2000) find that even firms with good reputation exploited minority shareholders during the Asian financial crisis during the late 1990s. In this environment, it is more difficult to specify and measure the terms of contracts as formal institutional structures are ambiguous, so transaction costs in economic exchanges across global emerging markets are higher (Peng, 2003).

2.3.3 Strategic responses of emerging market firms to overcome institutional voids

Khanna and Palepu (1997, 2011) argue that as in emerging markets institutions like efficient capital markets, regulatory systems, and contract enforcement mechanisms are weak, firms must develop strategic responses to overcome these voids. In this context, Young et al. (2008) posit that if emerging market companies seek access to minority capital they will have to incur bonding costs as a type of implicit guarantee against expropriation of minority shareholders. These strategic responses to bond with minority shareholders span over building a reputation of treating minority shareholders fairly (Gomes, 2000), strategic alliances with foreign multinationals from countries with strong institutions (Siegel, 2009), geographical clustering to create local business environments (Karna et al., 2013), expanding the business abroad to access more efficient and munificent foreign markets (Luo and Tung, 2007), or signalling commitment to fair practices by voluntary cross-listings on exchanges with strong monitoring standards (Young et al., 2008).

The very recent study of El Ghouli et al. (2017) is the first to test whether CSR might be another type of strategic response to overcome the transaction costs associated with institutional voids. They claim that CSR initiatives help reduce transaction cost and improve access to resources, which creates firm value. They find supportive evidence across 53 countries during 2003-2010 that CSR is more positively related to firm value in countries with weaker market institutions. Specifically, they find that CSR is adding value by being associated with improved access to financing in countries with weaker equity and credit markets, greater investment and lower

default risk in countries with more limited business freedom, and longer trade credit period and higher future sales growth in countries with weaker legal institutions. Linking this finding to the fact that global emerging markets as a group generally have weaker formal market-supporting institutions, there seems to be an increased incentive for firms in emerging markets to engage in CSR.

2.3.4 Societal and organizational trends driving CSR sensitivity across global emerging markets

For the channels between CSP and CFP to work, it is essential that the societies in emerging markets care about and value CSR commitments. While initial studies argue that stakeholders are less CSR sensitive in emerging markets or do not have the luxury to engage in CSR (e.g. Baughn et al., 2007), I find several societal and organizational trends that mitigate the reasons brought forward in these studies and are likely to further increase conduct and awareness of CSR activities in emerging markets.

First, Western multinational enterprises (MNEs) increasingly focus on outsourcing production units and expanding sales to emerging markets as a source of future growth and increased profitability (e.g. Lacy and Hayward, 2011). Due to this increased internationalization of supply chains, issues in health and product safety of products produced in emerging markets, such as the milk and toy scandals in China, affect MNEs directly as their stakeholders demand responsibility along the whole supply chain (e.g. Bogdanich, 2008). Utz (2017) for example argues that globalization forces firms from Asia-Pacific to overinvest in CSR to adapt to Western standards. Perez-Batres et al. (2010) find that companies of countries in Latin America that have close business ties with European countries face more pressure on CSR issues and thus increasingly engage in CSR activities.

Second, multinational enterprises from emerging markets (EM MNEs) increasingly emerged, such as Embraer of Brazil, Tata of India, and Alibaba and Haier (both of China). Attig et al. (2016) find that firm internationalization is positively related to firm's CSR performance. As these firms enter other emerging and developed markets, they gain considerable world-wide attention and their activities are thus in the spotlight of investors, academics, governments, other concerned group and individuals. Therefore, they are likely fall under the same scrutiny regarding CSR as the traditional Western MNEs, as they face heightened awareness of these stakeholders about pollution, product quality, and safety affecting the world at large

(Bogdanich, 2008) and are likely to further drive the convergence of CSR awareness in emerging markets to Western standards (e.g. Doh, Littell and Quigley, 2015).

Third, Western SRI investors with large capital accumulations in continuously low-interest environments amongst developed markets are searching for yield. At the same time, emerging markets have been increasingly recognized as the main factor for international diversification gains in portfolios of these investors (e.g. Goetzmann, Li, and Rowenhorst, 2005). According to a study of the McKinsey Global Institute (2010), the demand for capital across emerging markets is expected to keep surging for the foreseeable future. Emerging market companies thus have an incentive to increase their CSR performance to pass ESG screenings to access these capital pools via equity financing to drive their desired growth.

Fourth, strong CSR awareness of managers of emerging market firms as well as growing education levels and middle classes facilitate CSR sensitivity in these markets. Besides, Arya and Zhang (2009) state that social and environmental crises are usually most acutely felt in emerging countries. Lacy and Hayward (2011) conduct a CEO study on the topic of sustainability in partnership with United Nations Global Compact (UNGC) and Accenture. The study is based on a survey of 766 UNGC CEOs, in-depth interviews with an additional 50 member CEOs and further interviews with more than 50 business and civil society leaders. They find that a total of 93 percent of CEOs see sustainability as important to their company's future success. Furthermore, this figure is even higher in emerging markets, at 98 percent. They recognize that it is contestable if this survey alone represents a genuine shift towards a new approach to sustainability. However, they claim that among leading emerging market companies, momentum seems to be building both in words and in actions.

2.4 The CSP and CFP debate in the institutional context of emerging markets

2.4.1 *The effect of CSR on firm value across global emerging markets*

In summary, institutional theory suggests that – even though cross-country differences exist between them – global emerging markets as a group are typically characterised by weaker institutions and therewith economic exchanges endure higher transaction costs. These institutional voids shape the business environment and often induce PP conflicts via extensive family ownership and control, business group structures, and weak legal protection of minority shareholders and ultimately increase the risk of expropriation for minority shareholders. To overcome these voids and reduce undue transaction costs, firms must develop strategic

responses that alleviate these concerns of investors. El Ghouli et al. (2017) show that superior CSP reduces transaction costs and improves access to resources for companies in countries with weak institutions, which is reflected in higher firm values. Furthermore, societal and organizational trends emphasize the increase in CSR sensitivity of stakeholders and managers of emerging market firms. Following this logic, recent research strongly points towards a positive relationship between CSP and firm value across global emerging markets.

H1: CSR performance is positively related to firm value across global emerging markets

While the theoretical rationale to conduct CSR studies across global emerging markets is straightforward, there is no previous study examining this link treating global emerging market companies as a group. This is probably due to the neglect to recognize institutional commonalities across global emerging market companies, the ESG data scarcity in emerging markets and the extremely volatile capital markets in the last decade steering the focus on risk characteristics. This thesis closes this research gap.

2.4.2 The role of firm-level governance in emerging markets

As institutional theory suggests, emerging market companies often lack effective market supporting institutions, and thus suffer from a weak macro governance environment overseeing economic transactions. Therefore, the importance investors place on efficient internal corporate governance is especially high in emerging markets (Ding et al., 2010). Theoretically, this suggests that firms with higher governance rating performance enjoy higher firm valuations. In a similar study for a sample of U.S. firms, Kim et al. (2014) find that the mitigating effect of CSR on stock price crash risk is especially pronounced when the firm-level governance rating performance is low.

However, there is a problem arising from institutional differences between developed markets and emerging markets. This is because the predominant model of corporate governance is a product of developed economies, where ownership and control are often separated, and legal mechanisms protect owners' interests. That is why most attention when evaluating a firm's governance practices is placed on PA conflicts between owners and managers (Jensen and Meckling, 1976). However, the traditional focus on PA conflicts does not apply to emerging economies, where PP conflicts dominate the governance environment (Young et al., 2008). For example, in developed economies concentrated ownership is widely promoted as a possible means of addressing PA conflicts (Demsetz and Lehn, 1985). In emerging economies, however,

since concentrated ownership is the root cause of PP conflicts, increasing ownership concentration even further often make things worse (Faccio et al., 2001).

Thomson Reuters – like other ESG rating agencies – has a standard criteria list used for all companies which they evaluate. The governance pillar consists of three categories, i.e. management, shareholders, and CSR strategy. In this context, CSR strategy refers to the establishment of a sustainability committee, voluntarily disclosures, audits etc. Criteria for the shareholder category are for example shareholder policy engagements and majority requirements for director elections. While a high performance in Thomson Reuters governance performance is in line with proper governance structures according to the developed markets governance model, it might be less so in the institutional context of emerging markets.

Specifically, shareholders engaging in policy matters and having significant influence on the composition of the board of directors in developed countries with dispersed ownership will likely discipline managers. However, in emerging countries already dominant shareholders might use their engagement to steer business according to their personal interests and might put captured state officials or family members in the board of directors. This must not destroy value per se, as they could potentially better manage a company in the institutional context of emerging markets with institutional voids, but it could. Therefore, the effect of firm-level governance rating performance on firm value remains an empirical question and calls for a detailed inspection of all category scores.

H2: Firm-level governance rating performance has a positive effect on firm value across global emerging markets

While firm-level corporate governance constitutes an internal monitoring mechanism in the absence of market-supporting institutions in emerging markets, previous research has identified two key external monitoring mechanisms which also potentially reduce the risk of expropriation of minority shareholders, i.e. analyst coverage and institutional ownership.

2.4.3 The role of sell-side analysts on CSR and firm value across global emerging markets

According to Chung and Jo (1996), equity analysts act as an external monitor that help reduce agency costs, and as information intermediaries who steer investor attention towards important information. Yu (2008) claims that analyst coverage imposes discipline on misbehaving managers and helps align managers with the interests of shareholders. The primary role of

equity analysts concerning governance is to uncover any financial reporting irregularities rather than providing elaborate ESG information (Berk and DeMarzo, 2011). Consequently, firm value should increase in the number of financial analysts following the firm – next to CSR performance. However, in societies where economic exchanges are predominantly guided by informal institutions such as relational ties, business groups, family connections and government contacts (e.g. Young et al., 2008), analysing predominantly publicly available information might not yield superior intelligence. Chan and Hameed (2006) for example find that greater analyst coverage increases stock price synchronicity across global emerging markets. That means that the stocks of firms covered by more analysts have less firm-specific information content than the ones which are covered by less analysts. Therefore, whether analyst coverage has a positive effect (next to CSR performance) on firm value remains an empirical question.

H3: Analyst coverage has a positive effect on firm value across global emerging markets

Jo and Harjoto (2014) find for a sample of U.S. firms, that while analysts are primarily concerned with financial information, they provide indirect but additional social pressure on firms to reduce their irresponsible activities. Sell-side analysts work for brokerage firms and their trading recommendations serve as basis for decisions of a large pool of clients. As such, they work towards a reputation for accurate recommendations. In the emerging market context, that means that they would shy away from covering companies for which there are severe governance concerns resulting in high risk of expropriation of minority shareholder concerns – which are their clients. As such, analyst coverage could – just like superior CSP– signal trust to the marketplace that the covered company is well governed and bears little risk of minority shareholder expropriation and these companies should, in turn, enjoy higher valuations. Following this logic, both analysts as external monitors in economies with weak institutions and CSR as internal strategic response to overcome institutional voids could be partly substitutes for each other. In that case, analyst coverage would have a negative incremental effect on the hypothesized positive relation between CSR and firm value.

At the same time, CSR activities – especially when intended to attract foreign capital – must be effectively communicated to become a source of competitive advantage (Chahal and Sharma, 2006). As such, analysts could act as an amplifying voice in disseminating CSR commitments of emerging market companies and ESG rating agencies and equity analysts would be complementarians rather than competitors. Dimson et al. (2015) suggest that analyst coverage

intensifies reputational concerns along U.S. firms, which promotes the success of management change in cases where shareholders address environmental and social concerns. In these cases, analyst coverage would have a positive incremental effect on the hypothesized positive relation between CSR and firm value. Which effect prevails remains an empirical question.

H4: Analyst coverage amplifies the positive effect of CSR on firm value across global emerging markets

2.4.4 The role of institutional ownership in global emerging markets

As elaborated on before, large (Western) institutional investors increasingly exercise their rights as business owners to influence the management of their portfolio companies to address ESG concerns. They do so by engaging with management via letters, emails, telephone conversations, personal meetings with senior management and voting at shareholders' meetings on behalf of both their internal and external clients (Dimson et al., 2015). For a sample of U.S. public companies from 1999–2009, Dimson et al. (2015) find that successful (unsuccessful) ESG engagements are followed by positive (zero) abnormal returns. After successful engagements, companies experience improved accounting performance, governance and increased institutional ownership. They further find that companies with inferior corporate governance structures are more likely to be engaged by socially conscious institutional investors.

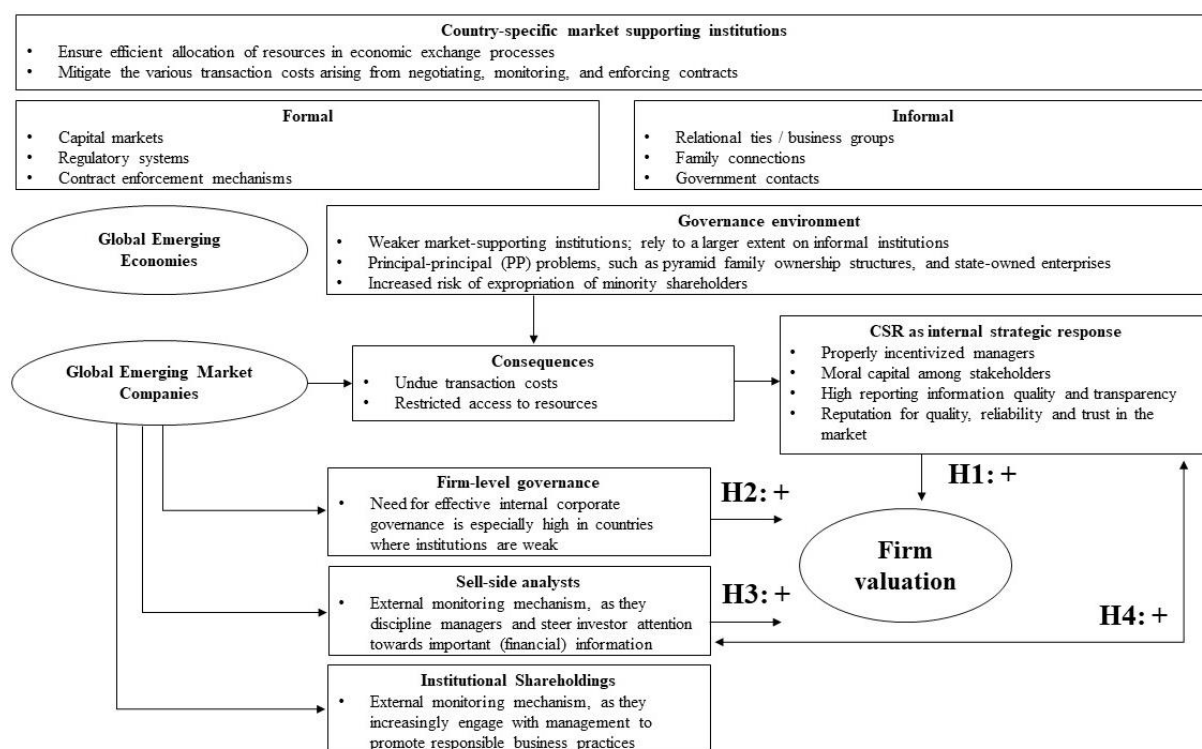
Bae, Lim, and Wei (2006) argue that in companies with strong monitoring from boards or institutional investors, adverse effects attested by proponents of the negative view of CSR such as bad news hoarding might be limited. The investment horizon of the institutional investor is critical. Callen and Fang (2013) find that in the U.S., the presence of long-term institutional investors reduce crash risk by limiting managerial bad-news hoarding, but short-term institutional investors are more likely to cause crashes through frequent trading due to high sensitivity to bad news. Overall, the current research focussing on developed markets favours the view that the presence of large and long-term oriented investors is associated with better return and risk profiles of companies. There is reason to believe that the same mechanism is less effective across emerging market companies. Dimson et al. (2015) point out that collaboration among activists is instrumental in increasing the success rate of environmental and social engagements. First, large institution with fiduciary duty are unlikely to have offices in every single emerging market in which they invest and cultural differences might be large.

Second, emerging markets are characterised by a more informal business and governance environment. Powerful managing principals belonging to influential families or working for the state might be less likely to collaborate when being engaged.

As such, it would be interesting to empirically test – just like for analyst coverage – if foreign long-term institutional shareholding is associated with higher subsequent firm valuation across global emerging markets and if and to which extent it is a substitute or complementary mechanism compared to CSR. Unfortunately, the data availability on institutional shareholdings accessible on Thomson Reuters EIKON is insufficient to construct a sample of significant size that establishes confidence in the statistical power of any empirical analysis. Therefore, I refrain from stating explicit hypotheses regarding the role of foreign institutional shareholdings in global emerging markets, but I encourage further researchers to address this issue.

Figure 1 below provides an overview of the different relationships presented in this thesis and my hypothesized interrelations of those.

Figure 1: Model of Relationships



3. Research Design

The research design chapter introduces the statistical set up of the empirical analysis conducted and is structured as follows. First, a detailed overview of how the sample has been constructed is given. Specifically, it elaborates on the sources of the raw data for dependent, independent, and control variables with their necessary exclusions, and the construction of the proxies for CSR performance and firm value. Second, it introduces the methodological set up of the unbalanced panel data analysis by elaborating on econometric frameworks and the specification used for the data at hand.

3.1 Sample construction

3.1.1 The sample

The raw data on ESG scorings, firm value, and control variables have been retrieved from Thomson Reuters EIKON in July 2018. The creation of a global sample of companies across emerging markets, a main distinctive aspect of my thesis, requires restructuring of the raw data. Specifically, Thomson Reuters EIKON provides ESG, market and fundamental data per financial year. However, closer examination reveals that these financial years differ between companies in terms of reporting date within a year and in terms of data availability. This means for example that the total value of common book equity of company x for the past 5 years spans over the time horizon of 2012-2016 and it reports on June 30 of each year, while the total value of common book equity of company y for the past 5 years spans over the time horizon of 2013-2017 and it reports on December 31 of each year. Consequently, the raw data had to be restructured, so that the financial years are consistent across all companies.

Table 1 below shows an overview over the sample selection process. The starting point is the Thomson Reuters Global Emerging Market index, which consists of 3091 companies, whose headquarters are based in countries defined as emerging markets by Thomson Reuters. Of these 3091 companies, only around a third (950) has received an ESG rating at least once in the period of 2010-2016. Furthermore, I exclude 13 company duplicates. There is no determining rule but considerable controversy regarding how to classify countries as emerging. In the academic context, an often-used benchmark when talking about emerging markets is the MSCI EM Index. Therefore, I decide to follow this index classification scheme (Appendix A) and exclude another

53 companies whose headquarters are based in countries which this benchmark index does not classify as emerging markets.

Table 1: Construction of the unbalanced data panel

In panel a of this table, the sample selection process is described. The raw data sourced from Thomson Reuters EIKON comprise 3091 companies comprised in the Thomson Reuters Global Emerging Market Index. 657 companies, for which at least in one financial year between 2010 and 2016 full data is available, are identified and included in the sample. The criteria in the first column involve Return on Assets (ROA), which is calculated as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$, SIZE, calculated as $\ln(\text{Book Value of Assets}_{i,Y})$ and Tobin's q (TOBQ), which is calculated as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$. Panel b illustrates the number of firm-year observations available per financial year. As this number varies over the sample period 2010-2016, this data panel is called unbalanced.

Panel A: Overview of the unbalanced panel data sample construction		
<i>Data source/operations conducted</i>	<i># Companies left</i>	<i># Exclusions</i>
TR Global Emerging Market Index	3091	
TR Global Emerging Markets index with at least one ESG scoring	950	2141
Excluding duplicates	937	13
Excluding non-MSCI EM defined countries	884	53
Excluding negative Book value of Equity	867	17
Trim SIZE and ROA at top and bottom percent	835	32
Excluding TOBQ >8 outliers	825	10
Excluding financial sector companies	657	168
Panel B: Number of final firm-year observations per financial year		
<i>Financial Year</i>	<i># Companies included in the sample</i>	
2010	424	
2011	470	
2012	517	
2013	551	
2014	595	
2015	618	
2016	625	
TOTAL	3800	

Furthermore, I exclude 17 firms with negative book values of equity as they are subject to different bankruptcy laws and might distort the results. Histograms reveal that there several extreme values in size and return on assets (ROA) in the 867 companies left, so I further trim the data along these two dimensions at the bottom and top percentile. They further reveal that there are several extreme positive outliers in Tobin's q (TOBQ), so I delete another 10 companies which have a value higher than 8. Finally, in line with previous research (e.g. Kim et al., 2014), I exclude 168 of the remaining companies which are classified as either banks or insurances according to the global industry classification standards (GICS) developed by MSCI

and Standard & Poor's. Financial institutions are often subject to different reporting standards and might distort the results when included. The final sample consists of 657 firms. The increasing data availability of emerging market companies becomes evident in panel b of Table 1, which shows that the number of firm year observations per financial year is strictly increasing in time. The number of firm-year observations across all years amounts to 3800.

Table 2 below shows a more detailed overview over the sampling distribution by country, MSCI EM region and GICS industry group. The distribution by country ranges from merely one company in the Czech Republic to 100 companies in Taiwan. Generally, data availability seems to be most extensive in Asian countries and least extensive in countries of the Middle East and Eastern Europe. This can be further seen in the sample distribution by MSCI region. Companies clustered into the emerging market region Asia represent nearly 60% of the sample, while the other two regions EMEA and Americas only represent around 20% each. However, there is no reason to be concerned about systematic sampling bias. The latest MSCI EM index fact sheet of August 2018 reveals that China, Taiwan, and India make up over 50% of the index, while these three countries together amount to less than 40% in my sample. Instead of sample bias, there is simply a dominance of Asian economies that are emerging. Furthermore, there are over one hundred companies in each region, so the sample is well diversified. Panel c shows the distribution by the remaining 22 GICS industry groups, after banks and insurances have been excluded. While commercial & professional services and diversified financial (0.30% and 0.61%, respectively) are underrepresented, materials and capital goods (15.22% and 10.35%, respectively) are slightly overrepresented.

This is no surprise, given that the two usually large tertiary industry sectors banks and insurances have been excluded and the primary and secondary economic sectors in emerging economies are typically larger compared to developed economies. Moreover, the shares of the remaining industry groups are reasonably close to each other, so that this dimension of the sample does also not raise serious concerns about any systematic sample bias.

Table 2: Sample distribution by country, region, and industry group

This table shows the sample distribution of 657 individual companies retrieved from Thomson Reuters EIKON that are in countries defined as emerging markets according to the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification during 2010-2016. Panel a shows the number and percentage of the 657 companies belonging to each of the 20 different emerging markets of this sample. Panel b shows the number and percentage of the 657 companies belonging to each of the three regions in which the MSCI EM index is divided. Panel c shows the number and percentage of the 657 companies belonging to each of the remaining 22 global industry classification standards (GICS) industry groups developed by MSCI and Standard & Poor's, after the two industry groups industries banks and insurances have been excluded due to regulatory reporting differences.

Panel A: By Country			Panel C: By GICS Industry Group		
<i>Country</i>	<i>N</i>	<i>%</i>	<i>GICS Industry Group</i>	<i>N</i>	<i>%</i>
South Africa	75	11.42%	Materials	100	15.22%
Malaysia	38	5.78%	Food, Beverage & Tobacco	46	7.00%
Hong Kong	30	4.57%	Capital Goods	68	10.35%
Taiwan	100	15.22%	Food & Staples Retailing	17	2.59%
Thailand	30	4.57%	Real Estate	49	7.46%
Philippines	22	3.35%	Energy	47	7.15%
Indonesia	29	4.41%	Utilities	61	9.28%
India	71	10.81%	Technology Hardware & Equipment	38	5.78%
Czech Republic	1	0.15%	Automobiles & Components	24	3.65%
Russia	25	3.81%	Pharma, Biotechnology & Life Sciences	17	2.59%
Turkey	18	2.74%	Retailing	19	2.89%
Hungary	3	0.46%	Transportation	46	7.00%
Brazil	56	8.52%	Semiconductors & Equipment	13	1.98%
China	62	13.44%	Telecommunication Services	41	6.24%
Mexico	31	4.72%	Consumer Services	14	2.13%
Egypt	5	0.76%	Commercial & Prof. Services	2	0.30%
Chile	31	4.72%	Household & Personal Products	5	0.76%
UA Emirates	6	0.91%	Consumer Durables & Apparel	18	2.74%
Qatar	7	1.07%	Diversified Financials	4	0.61%
Poland	17	2.59%	Media	10	1.52%
TOTAL	657	100%	Health Care Equipment & Services	10	1.52%
Panel B: By MSCI EM Region			Software & Services	8	1.22%
<i>MSCI EM Region</i>	<i>N</i>	<i>%</i>	TOTAL	657	100%
Asia	382	58.14%			
EMEA	157	23.90%			
Americas	118	17.96%			
TOTAL	657	100%			

3.1.2 Measuring CSR performance

For international CSR studies and especially studies examining CSR in emerging markets, the preferred database for ESG data is Thomson Reuters EIKON, as it is one of the most comprehensive ESG databases in the industry covering over 7,000 public companies globally, across more than 400 different ESG metrics, increasingly enhancing the coverage of emerging market companies since 2010 (Halbritter and Dorfleitner, 2015; Thomson Reuters, 2018). Following these studies and given that this thesis is conducted across global emerging markets, I rely on these Thomson Reuters EIKON ESG scores in the statistical analysis. These scores are updated financial yearly and even include firms after bankruptcy, a merger, and other causes

of delisting. Thus, the data set is free from survivorship bias (Utz, 2017). They span over ten category scores, which are combined into three pillars: environmental, social, and governance. These are further aggregated into an ESG score and any controversies across these categories are captured in a separate ESG controversies score. The ESG score is eventually combined with the ESG controversies score to yield the ESG combined score. All scores range from 0-100 and are assessed relative to their industry peers. A detailed overview of the methodology of the Thomson Reuters EIKON ESG ratings can be found in Appendix B.

In line with the rationale to conceptually differentiate between ESG and CSR above, authors of recent studies on CSR in international or emerging market settings across top rated journals refer to the common practice of using the equally-weighted average of the environmental and social pillar scores as proxy for CSR performance (e.g. Kim et al., 2014; El Ghouli et al., 2017, Utz, 2017). Following their logic, I define CSR performance $CSR_{i,Y}$ of firm i in financial year Y as:

$$(1) CSR_{i,Y} = \frac{Environmental\ pillar\ score_{i,Y} + Social\ pillar\ score_{i,Y}}{2}$$

However, this approach is subject to debate. The governance scores are composed of the management, shareholders, and CSR strategy categories. However, CSR activity is exactly what researchers are intending to proxy by the combination of the environmental and social pillars. In line with this criticism, Utz (2017) and Attig et al. (2013) observe that the significance of pillar scores in their analyses is driven by just a few categories and that some categories in the same pillars have contradicting effects and might therefore mask statistically consistent results at pillar level. Therefore, I conduct an additional analysis where I inspect the effect of the individual ESG category scores on firm value.

3.1.3 Measuring firm value

A common proxy used for firm value is Tobin's q ratio (e.g. Gompers et al., 2003; Bebchuk and Cohen, 2005; Cremers and Nair, 2005). As CSR can translate into superior firm performance through various channels effecting return and risk dimensions, I use Tobin's q as firm value proxy for financial performance, as it captures all these channels in aggregate (El Ghouli et al., 2017). Tobin's q (TOBQ) is defined as the market value of the firm's assets divided by the replacement value of the firm's assets and indicates by how much more (less) the market

values the company's assets above (below) the mere book value of the assets the firm owns. In line with El Ghoul et al. (2017), I compute $TOBQ_{i,Y}$ for firm i in financial year Y as follows:

$$(2) TOBQ_{i,Y} = \frac{Market\ Capitalization_{i,Y} + Book\ Value\ of\ Assets_{i,Y} - Book\ Value\ of\ Equity_{i,Y}}{Book\ Value\ of\ Assets_{i,Y}}$$

Using TOBQ as dependent variable rather than stock returns has the advantage that within the Thomson Reuters EIKON database, market capitalization and accounting data are both measured on the reporting date of each company and thus automatically match. Proxies involving stock return data would necessitate the matching of trading days to the individual financial reporting dates of each company and to guarantee comparability, trading days between companies that are listed on different exchanges would have to be matched. Moreover, Thomson Reuters does not report the dates at which they publish their ESG ratings. This results in a timing problem regarding stock return and CSR performance.

3.1.4 Control variables

I follow the previously introduced studies of Gompers et al. (2013) and El Ghoul et al. (2017), which have identified a variety of control variables expected to significantly influence TOBQ beyond CSR. (1) Firms that are more profitable have more scope to pay dividends, invest in necessary R&D or other projects and to sustain adverse market events and are thus expected to have higher firm values. I define $ROA_{i,Y}$ as net income before extraordinary items during financial year Y scaled by previous financial year's total book value of assets. (2) Larger firms are already established and are associated with lower TOBQ because these firms tend to have more limited growth opportunities. I define $SIZE_{i,Y}$ as the logarithm of total book value of assets at the end of the financial year. (3) Firms with higher leverage are expected to be more sensitive to market shocks and to have less flexibility in making investment decisions due to for example constraining debt covenants, resulting in lower TOBQ. I define $LEV_{i,Y}$ as total book value of debt at the end of the financial year over total book value of assets at the end of the same financial year.

(4) In developed markets and international studies, economic development has been found to be positively related to TOBQ (e.g. El Ghoul et al., 2017). The rationale is that economic development is associated with better institutions like equity and debt markets and legal protection, which results in higher valuations. On the other hand, countries with higher

economic development often yield less growth opportunities as these markets are typically more saturated. In a purely emerging market companies sample like in this study, the effect remains to be seen. I define $GDP_{i,Y}$ as the logarithm of GDP per capita each year at constant 2000 USD, which I retrieved from the publicly available World Bank database. (5) In the institutional environment of emerging markets, firms that have had more time to establish trust among minority shareholders are likely to be able to attract more local and foreign capital. Therefore, firm age is expected to be positively related to TOBQ. I follow Gompers et al. (2003) in defining $AGE_{i,Y}$ as the logarithm of firm age at the end of the financial year. An overview of all variables with precise Thomson Reuters definitions can be found in Appendix C.

3.2 Methodology

3.2.1 Panel data analysis

The key feature of a data panel set is that it contains observations of individuals across both, the cross-sectional and the time-series (longitudinal) dimensions. Therefore, panel data regressions differ from a regular time-series or cross-section regressions in that the variables have double subscripts. In its simplest form, the baseline regression inspected looks as follows:

$$(3) \text{TOBQ}_{i,Y+1} = \alpha_0 + \beta_1 * \text{CSR}_{i,Y} + \beta_2 * \text{ROA}_{i,Y} + \beta_3 * \text{LEV}_{i,Y} + \beta_4 * \text{SIZE}_{i,Y} \\ + \beta_4 * \text{GDP}_{i,Y} + \beta_4 * \text{AGE}_{i,Y} + \varepsilon_{i,Y}$$

Where i denotes the individual firms (cross-section component) and Y denotes the different financial years (time-series component) for which these individual firm observations are collected. This baseline regression tests the effect of CSR performance on one-year ahead firm valuation proxied by TOBQ while controlling for fundamental variables explained above. In line with El Ghoul et al. (2017), I use lagged CSR and fundamental data to mitigate concerns about reverse causality and simultaneity. The cross-sectional observations are the 657 individual companies. The time-series observations are regularly spaced over a period of seven individual financial years, i.e. 2010-2016 for the independent variables and 2011-2017 for the dependent variable.

Data panels can be either balanced or unbalanced. A balanced panel sample in this context would mean that I only include companies in the sample that have full availability of data across the entire time horizon of 2010-2016 for independent variables and equivalently 2011-2017 for the dependent variable. An unbalanced panel data includes firms for which all variables are

available in one year, independent of whether they are available in any of the other years. The main advantage of a balanced data panel is the statistical ease of analysing it with standard statistical software. The disadvantage is that it necessitates the exclusion of a relatively large amount of observations. Compared to similar studies, the sample size of 3080 firm-year observations is on the lower end, so excluding even more observations is not desirable. More importantly, only analysing companies with a complete history of data may inflict attrition bias on the analysis, which relates to systematic non-response or dropping of observations which inflict the statistical validity of the analysis (Baltagi, 2005). Specifically, there might be an underlying reason why companies have full histories of ESG data, and only including those companies might influence the outcome of the empirical analysis leading to falsely generalising results only applying to this specific type of companies. For these reasons, I rely on an unbalanced panel data regression analysis. The next section elaborates on the exact model specification used.

3.2.2 *Fixed effects OLS model*

There are three different kinds of OLS panel data regression models which one needs to estimate to subsequently select the most appropriate one. The pooled regression model pools all 3010 firm-year observations together, combining all 657 companies and therewith neglecting the cross section and time series nature of the data. The fixed effects model allows for heterogeneity or individuality among the cross-sections, periods or both by allowing them to have individual time-invariant and/or period individual-invariant intercepts and error terms. The random effects model maintains the cross-section and time series nature of the data model, but instead of systematic individuality among these dimensions, it imposes a common mean value for the intercept across all cross-sections and/or periods (Baltagi, 2005).

I run a pooled panel regression as a basis to conduct the Breusch and Pagan (1979) test for heteroscedasticity and random coefficient variation. Its null hypothesis is that there is no heteroskedasticity along both dimensions, cross-sections and periods. For both dimensions, this is clearly rejected, providing evidence of heteroskedasticity along both dimensions at the 1% level (Appendix D). This first attempt suggests a two-way error component unbalanced OLS regression model as proposed by El Ghoul et al. (2017) with fixed effects for cross-sections and periods, which looks as follows:

$$(4) TOBQ_{i,Y+1} = \alpha_0 + \beta_1 * CSR_{i,Y} + \beta_2 * ROA_{i,Y} + \beta_3 * LEV_{i,Y} + \beta_4 * SIZE_{i,Y} \\ + \beta_4 * GDP_{i,Y} + \beta_4 * AGE_{i,Y} + FIXED\ EFFECTS + u_{i,Y}$$

Where *FIXED EFFECTS* represent dummy variables for companies and years and the model contains two-way error component disturbances:

$$u_{i,Y} = \mu_{i,Y} + \lambda_{i,Y} + \vartheta_{i,Y}$$

The model error term $u_{i,Y}$ is composed of $\mu_{i,Y}$, which denotes the time-invariant unobservable cross-sectional individual effect, $\lambda_{i,Y}$ denotes the individual-invariant unobservable time-series effect and $\vartheta_{i,Y}$ is the remainder stochastic disturbance term. The critical assumption for this two-way fixed effects error component model with ordinary least squares (OLS) estimators to produce consistent estimators is that the remainder stochastic error term is normally distributed with constant variance, i.e. $\vartheta_{i,Y} \sim \text{IID}(0, \sigma_\vartheta^2)$. If the unobserved heterogeneity contained in the remainder stochastic error is correlated with one or more of the explanatory variables, OLS parameter estimates are biased and inconsistent (Baltagi, 2005).

3.2.3 Generalized least square regression (EGLS)

I conduct a White (1980) test for heteroskedasticity, i.e. I regress the remainder residuals of the fixed effects model against the squared regressors. The joint significance of the explanatories is given by the reported F-statistic of 84.621 with a corresponding p-value of 0.000 (Appendix E). Consequently, the hypothesis that the explanatories are insignificant is rejected, so the OLS fixed effects model suffers from heterogeneity in the remainder error term. Furthermore, a Jarque-Bera test for normality of the standardized remainder disturbances yields a test statistic of 7509 and is rejected at the 1% level (Appendix E). Consequently, OLS estimates are inconsistent for our data and it is necessary to switch to a generalized least squares (GLS) model (Baltagi, 2005).

I repeat the White test separately for cross-sectional fixed effects and period fixed effects and find that the heteroskedasticity stems almost exclusively from the cross-section error terms. Therefore, I specify an estimated generalized least square regression (EGLS) with cross-section weights, as it relaxes the assumption of homoskedasticity in the cross-sections but copes with the heteroskedasticity through a cross-sectionally weighted error term, as first suggested by Mazodier and Trognon (1978). With this model specification, the heteroskedasticity problem is eliminated, as the subsequent White test in Appendix F shows. Furthermore, this EGLS

model reveals that the standard errors of the estimators are smaller, which provides additional evidence that for the dataset GLS is more efficient than OLS. For the research setting at hand, this pooled GLS model specification also has a conceptual advantage over the fixed effects methodology applied by El Ghouli et al. (2017). While they specify numerous institutional variables to trace out specific institutional country-level determinants that effect the relationship between CSR and firm valuation, the crucial point of my analysis is the assumption that global emerging markets as a pooled group are determined by weak institutions.

By selecting cross-section weights in the EViews mask, the software automatically estimates a feasible GLS specification correcting for the presence of cross-section heteroskedasticity. Moreover, I report corresponding robust standard errors adjusted for the presence of heteroskedasticity in the cross-sections. The final model looks as follows:

$$(5) TOBQ_{i,Y+1} = \alpha_0 + \beta_1 * CSR_{i,Y} + \beta_2 * ROA_{i,Y} + \beta_3 * LEV_{i,Y} + \beta_4 * SIZE_{i,Y} \\ + \beta_4 * GDP_{i,Y} + \beta_4 * AGE_{i,Y} + \gamma_{i,Y}$$

with cross-sectionally weighted error disturbances:

$$\gamma_{i,Y} = w_{i,Y} * \mu_{i,Y} + \vartheta_{i,Y}$$

where $w_{i,Y}$ represents the weight placed on each cross-section residual when minimizing the overall sum of squared residuals of the overall GLS model.

To test for regional differences in this relationship, I iteratively run this baseline regression including the respective interaction terms $CSR*Asia$, $CSR*EMEA$, and $CSR*Americas$. To test the effect of firm-level governance and ESG ratings on pillar and category level on firm value across emerging markets, I adjust the independent variables of baseline regression (5) accordingly. Specifically, I substitute the CSR proxy for (1) the ESG combined score, (2) the three pillar scores (3) the governmental pillar score separately, (4) the governmental pillar category scores: Management, Shareholders, and CSR Strategy, (5) and all 10 category scores: Resource Use, Emissions, Environmental Innovation, Workforce, Human Rights, Community, Product Responsibility, Management, Shareholders, CSR Strategy. The methodology, however, does not change. The same holds true for the analysis of the effect of analyst coverage on the relationship of CSR and firm value. Specifically, I add $ANA_{i,Y}$ as defined before to baseline regression model (5). Furthermore, I add the interaction term $CSR_{i,Y}*ANA_{i,Y}$ to inspect whether and to which extent ESG rating providers and analysts are complementarians or substitutes. As the number of analysts is only available for slightly less companies, the analysis on the role of analysts is conducted on a reduced sample with 3,504 firm-year observations.

4. Results

This chapter provides an objective analysis of the descriptive and inferential statistics produced by the empirical analysis and is structured as follows. First, descriptive statistics for the full sample and by country and region are presented. Second, the results of the inferential statistics regarding the main analysis of the effect of CSR on firm value and the additional analyses regarding the role of firm-level governance and sell-side analysts are presented. The description of the statistical results provides the basis for a subjective interpretation of them in the context of the introduced literature, which follows in the fifth chapter.

4.1 Descriptive Statistics

Table 3 below shows the descriptive statistics of the unbalanced data panel. Even though I excluded 10 outliers with values for TOBQ above 8, the dispersion in firm value is considerable. In the international sample of 2445 firms from 53 countries over the period 2003-2010 across both developed and emerging markets of El Ghouli et al. (2017), the mean value of TOBQ is 1.76 with a standard deviation of 0.99. In my sample, consisting of companies exclusively from emerging markets, the mean value of TOBQ is slightly lower with 1.661 and the standard deviation slightly higher with 1.080. Their sample yields an average value of CSR of 52.72 with a standard deviation of 28.89. In my sample, the average value of CSR is slightly lower with 46.794 and the standard is notably lower with 20.898. Even though the sample periods differ, and the samples span over different geographies, the values are relatively similar. The signs and magnitudes of the control variables are also in line with previous research.

Firm size is measured as the logarithm of total book value of assets and transformation to natural numbers shows that it varies from around USD 140mn to around USD 410bn with a mean and median value of around USD 5.3bn. This indicates that there are rather large companies included in the final sample, which is probably caused by the fact that Thomson Reuter covers rather large companies about which there is enough public information available to arrive at accurate rating results. Moreover, the demand for ESG data of clients is likely to be larger for large, publicly traded companies. As such, this constitutes a potential limitation in the way that the obtained results and conclusions might exclusively apply to relatively large firms.

Table 3: Descriptive statistics for the full and reduced sample

This table presents the descriptive statistics for the full sample of 657 individual emerging market firms with 3,800 firm-year observations included in the baseline unbalanced data panel as well as for the reduced sample of 3,504 firm-year observations used for the additional analysis of the role of analysts (last row). One-year ahead Tobin's q (TOBQ) is measured for the financial reporting years from 2011-2017 and is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$. All other variables are constructed with financial yearly data ranging from 2010-2016. The Corporate Social Responsibility (CSR) proxy is constructed from Thomson Reuters EIKON ESG scores and defined as $\frac{\text{Environmental pillar score}_{i,Y} + \text{Social pillar score}_{i,Y}}{2}$. Return on Assets (ROA) is defined as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$. Leverage (LEV) is defined as $\frac{\text{Total Reported Value of Debt}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$. SIZE is defined as the logarithm of *Book Value of Assets*_{*i,Y*}. GDP is defined as the logarithm of GDP per capita in constant 2010 USD_{*i,Y*}. Age is defined as the logarithm of current Year $Y_i - \text{Year of incorporation}_i$. For the additional analysis of firm-level governance, the Thomson Reuters ESG combined score, the three pillar level scores: Environmental, Social, and Governance as well as the ten category level scores: Resource Use, Emissions, Environmental Innovation, Workforce, Human Rights, Community, Product Responsibility, Management, Shareholders, and CSR Strategy, are included. All scores range from 0-100 and are assessed relative to their industry peers. A detailed overview of the methodology of the Thomson Reuters EIKON ESG ratings can be found in Appendix B. For the additional analysis of analyst coverage, ANA is defined as the logarithm of the *Weighted – average number of sell – side analysts*_{*i,Y*} that are covering the stock of the company. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

Variable	N	Mean	Min	Q1	Median	Q3	Max	SD
Dependent Variable								
TOBQ	3800	1.661	0.323	1.019	1.273	1.887	7.889	1.080
Independent Variable								
CSR (raw)	3800	46.794	5.241	28.696	47.033	63.471	94.928	20.898
CRS (normalised)	3800	0.463	0	0.262	0.466	0.649	1	0.233
Control Variables								
ROA	3800	0.068	-0.317	0.027	0.054	0.096	0.880	0.073
LEV	3800	0.272	0.000	0.149	0.271	0.374	0.811	0.160
SIZE	3800	22.394	18.755	21.548	22.396	23.229	26.736	1.226
GDP	3800	9.081	7.205	8.652	9.208	9.609	11.194	0.861
AGE	3800	3.537	0.693	3.091	3.497	3.970	5.176	0.571
Additional analysis: Firm-level governance								
ESG combined score	3800	44.271	6.133	31.107	42.702	56.941	92.313	17.043
Environmental Pillar (E)	3800	46.221	2.600	27.568	45.562	63.706	98.462	22.286
Social Pillar (S)	3800	47.368	3.413	27.439	47.922	65.714	96.674	22.776
Governance Pillar (G)	3800	49.567	2.605	32.998	49.200	65.942	97.506	21.054
G (normalized)	3800	0.495	0	0.320	0.491	0.667	1	0.222
Resource Use	3800	46.576	0.167	23.333	45.565	67.724	99.838	26.473
Emissions	3800	45.931	0.168	21.077	45.326	69.048	99.775	28.378
Environmental Innovation	3800	46.180	0.177	25.294	41.100	67.373	99.819	26.543
Workforce	3800	51.426	0.162	26.744	52.705	76.173	99.775	28.633
Human Rights	3800	47.723	7.692	26.800	34.574	71.104	99.746	25.980
Community	3800	39.578	0.162	14.085	32.438	64.073	99.825	29.202
Product Responsibility	3800	46.765	0.234	20.940	44.186	72.099	99.838	29.106
Management	3800	50.681	0.355	25.944	51.087	75.754	99.624	28.644
Shareholders	3800	48.547	0.021	24.428	47.442	72.642	99.645	28.390
CSR Strategy	3800	52.140	0.391	27.166	52.000	76.667	99.624	28.162
Additional analysis: Sell-side analysts								
ANA	3504	2.431	0	2.079	2.565	2.944	4.025	0.788

The same transformation reveals that firm-age varies from just 2 years of existence to 177 years of existence with a mean age of 35 years. This further shows that firms are not just relatively large but also relatively mature, even though there are some very recently established firms in the left tail of the distribution.

The ESG rating variables for the additional analysis regarding the role of firm-level governance vary from mean values of 39.578 in the community dimension to 52.140 in the CSR strategy dimension. Of all variables, the controversial CSR strategy category of the governance pillar, which the common CSR proxy does not capture, scores the highest in this sample. This emphasizes the relevance of a further investigation of the reasonableness of this commonly used proxy. Furthermore, it is striking that the dispersion of the scores decreases in the consolidation of categories to pillars and ultimately the ESG-combined score. This could indicate that some important information contained in the category scores are smoothed out when combined into pillar scores and investors merely relying on pillar or combined scores might fail to notice this information. In line with El Ghouli et al. (2017), after pointing out these features of the raw ESG scores, I normalise all scores for the further analysis, so that they range between 0 and 1. However, table 3 only illustrates them for the key independent variables, CSR and Governance Pillar, to preserve the readability of this thesis.

Data regarding the number of sell-side analysts covering the company stock is only available for 638 individual firms with 3504 firm-year observations. ANA is also measured on a logarithmic scale. Transforming these values shows that the weighted-average number of sell-side analysts covering the stock per financial year varies greatly between 1 and 56, with the average company being relatively extensively followed by 15 analysts. The relatively large average of analyst coverage is no surprise given the previous findings that the firms included in the final sample are relatively large and mature.

Table 4 below shows the mean values and the corresponding standard deviations for the two key variables of the analysis, TOBQ and CSR performance, for each country in panel a and each region in panel b. Panel a illustrates that the mean values for TOBQ range from 0.980 with a standard deviation of 0.210 in Egypt to 2.445 with a standard deviation of 1.824 in India. Interestingly, companies from Egypt also have the weakest mean value in the CSR proxy score of 21.192 with a standard deviation of 5.325. The highest mean value in the CSR proxy score is obtained by Hungary with a value of 68.062 and a standard deviation of 19.130.

However, the number of observations for each country differs considerably. The sample includes 71 companies from India representing 10.81% of the overall sample (Table 2), so that it is relatively safe to attest a high mean firm valuation for Indian firms compared to other global emerging markets. This might be due to the strong GDP growth rates the Indian economy experienced in the past decade which are likely to drive future earnings growth and should ultimately be reflected in market valuations. In the other cases, the final sample merely includes five companies for Egypt and three companies for Hungary, both representing less than one percent of the overall sample. Therefore, I refrain from drawing generalized conclusions about firm valuation and CSR performance levels from these findings.

Instead, panel b reveals that when countries are combined into their respective MSCI regions, the average values and standard deviations of both variables of EMEA and Americas are very similar, so that the cross-country differences when aggregated might play less of a role. Companies across emerging markets in Asia, however, seem to have higher average firm valuations than their counterparts in EMEA and the Americas. Specifically, average TOBQ of 1.712 for Asian companies is higher than 1.578 for companies located in EMEA and 1.598 for companies located in the Americas. At the same time, the standard deviation of TOBQ of 1.168 across Asian firms is considerably higher compared to the other two regions, with 0.992 for EMEA and 0.833 for Americas. While Asian firms enjoy relatively large valuations, these valuations also differ to the greatest extent from company to company. At the same time, they exhibit the worst average CSR performance of 43.959, which is below the 49.660 of EMEA and the 52.892 of Americas. The standard deviation in the CSR dimension is reasonably equal across all three regions.

Table 4: TOBQ and CSR by country and region

This table presents the descriptive statistics for the key variables of the full unbalanced data panel covering 3,800 firm-year observations of 657 individual emerging market companies over the period from 2010-2016 used for baseline regression (5) by country and region. Firm valuation is the dependent variable and proxied by one-year ahead Tobin's q , which is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$ and collected for the financial reporting years from 2011-2017. Corporate Social Responsibility (CSR) is the independent variable and proxied by Thomson Reuters EIKON ESG scores as $\frac{\text{Environmental pillar score}_{i,Y} + \text{Social pillar score}_{i,Y}}{2}$ and collected over the period from 2010-2016. Panel a shows the mean and standard deviation of TOBQ and CSR in 20 different countries defined as emerging markets according to the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Panel b shows the mean and standard deviation of TOBQ and CSR across the three regions in which the MSCI EM index is divided. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

Panel A: Descriptive statistics by country

Country	TOBQ		CSR	
	Mean	SD	Mean	SD
South Africa	1.881	1.161	56.199	15.408
Malaysia	1.656	0.827	46.384	15.073
Hong Kong	1.179	0.412	33.796	16.401
Taiwan	1.509	0.918	40.399	22.603
Thailand	2.158	1.456	58.909	18.610
Philippines	1.806	0.787	45.577	20.682
Indonesia	2.161	1.201	47.105	19.194
India	2.445	1.824	53.942	20.748
Czech Republic	0.996	0.141	39.780	5.211
Russia	1.223	0.699	45.926	19.274
Turkey	1.630	0.859	51.772	18.880
Hungary	1.135	0.255	68.062	19.130
Brazil	1.526	0.883	58.960	17.739
China	1.250	0.400	36.255	17.535
Mexico	1.919	0.836	48.711	22.199
Egypt	0.980	0.210	21.192	5.325
Chile	1.413	0.554	41.969	19.384
United Arab Emirates	1.412	0.355	40.276	14.097
Qatar	1.608	0.640	21.872	12.711
Poland	1.169	0.709	40.876	21.560

Panel B: Descriptive statistics by MSCI region

Region	TOBQ		CSR	
	Mean	SD	Mean	SD
Asia	1.712	1.168	43.959	21.025
EMEA	1.578	0.992	49.660	19.556
Americas	1.598	0.833	52.892	20.473

4.2 Inferential statistics

4.2.1 *The effect of CSR performance on firm value across global emerging markets*

The first column of table 5 below presents the results of the baseline analysis, i.e. the effect of CSR rating performance (CSR) on one-year ahead firm value (TOBQ). Columns (2)-(4) show regional differences in the effect of the baseline regressions following the MSCI classified regions Asia, EMEA, and Americas, respectively. The constant in all specifications is relatively large, because the logarithmic values of total assets, i.e. SIZE, are large in absolute values compared to the other variables and thus shift up the regression line minimizing the weighted squared residuals. The adjusted R^2 of the overall baseline model in column (1) amounts to 0.651, so the model explains a considerable portion of the overall variability of the data. All coefficients are statistically significant and untabulated results show that dropping control variables does not significantly increase the adjusted R^2 .

Column (1) shows a positive CSR coefficient of 0.181, which is statistically significant at the 1% level. Thus, a one-standard-deviation increase in normalised CSR score performance (0.233) of an emerging market company in this sample is – on average – associated with a 0.042 (0.181×0.233) point increase in one-year ahead TOBQ. Compared to the mean value of 1.661 for TOBQ across the sample, this increase constitutes around 2.5% ($0.042/1.661$) of that value. As TOBQ measures the market value of a firm's assets over by the replacement value of the firm's assets and I know that the mean and median book values of total assets for this sample is around USD 5.3bn, it is obvious that small changes in this measure can have large absolute economic impacts. Thus, the analysis attests both a statistically and economically significant value-enhancing effect of CSR performance across global emerging market firms.

In line with my predictions and former research, profitability is positively related to TOBQ, and leverage and size are negatively related to TOBQ. A one-standard-deviation increase in ROA (0.073) is associated with a 0.416 (5.705×0.073) point increase in one-year ahead TOBQ. This large magnitude is intuitive given the sensitivity of firm valuation to profitability. A one-standard-deviation increase in LEV (0.16) is associated with a 0.029 (0.184×0.16) point decrease in one-year ahead TOBQ. As LEV is also constructed as a simple ratio from the reporting data, firm valuation is less sensitive to LEV compared to ROA. This finding is in line with the study of El Ghouli et al. (2017), which find a strong effect for return on assets but only mild evidence for a negative effect of leverage.

Table 5: Baseline and regional TOBQ regressions

The first column presents the baseline unbalanced panel regression (5) results of the effect of corporate social performance on firm valuation for a sample of 657 individual emerging market firms with a total of 3,800 firm-year observations. Firm valuation is the dependent variable and proxied by one-year ahead Tobin's q, which is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$ and collected for the financial reporting years from 2011-2017. Corporate Social Responsibility performance (CSR) is the independent variable and proxied by Thomson Reuters EIKON ESG scores as $\frac{\text{Environmental pillar score}_{i,Y} + \text{Social pillar score}_{i,Y}}{2}$ and collected over the period from 2010-2016. The control variables comprise Return on Assets (ROA) defined as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$, Leverage (LEV) defined as $\frac{\text{Total Reported Value of Debt}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$, SIZE defined as the logarithm of $\text{Book Value of Assets}_{i,Y}$, GDP defined as the logarithm of GDP per capita in constant 2010 USD_{*i,Y*}, and Age defined as the logarithm of current Year $Y_i - \text{Year of incorporation}_i$. Columns (2)-(4) test for differences in the baseline effect across the three regions in which the 657 companies are grouped, by containing the interaction terms CSR*Asia, CSR*EMEA, CSR*Americas, respectively. The models are specified with Error Generalized Least Squares (EGLS) estimation with cross-section weights, allowing for heterogeneity in the cross-sections. Furthermore, the two-tailed p-values are based on robust standard errors adjusted for the presence of heteroskedasticity in the cross-sections. * and ** indicate significance at the 5 percent and 1 percent levels, respectively. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

Variable	(1)	(2)	(3)	(4)
C	7.058**	6.883**	7.065**	7.295**
CSR	0.181**	0.169**	0.235**	0.104**
ROA	5.705**	5.654**	5.638**	5.810**
LEV	-0.184**	-0.177**	-0.193**	-0.189**
SIZE	-0.206**	-0.201**	-0.211**	-0.211**
GDP	-0.173**	-0.168**	-0.160**	-0.184**
AGE	0.076**	0.081**	0.073**	0.074**
CSR*Asia		0.012		
CSR*EMEA			-0.257**	
CSR*Americas				0.275**
Cross-section weights	YES	YES	YES	YES
Adj. R ²	0.651	0.630	0.624	0.679

As SIZE, GDP and AGE are measured on a logarithmic scale, I assess their impact in percentage changes rather than standard deviations, as I find these more intuitive. A company with a one percent increase in SIZE is on average associated with a 0.00206 (0.206/100) point decrease in one-year ahead TOBQ. In contrast to El Ghoul et al. (2017), the effect of GDP is negative and significant in the global emerging market sample at hand. A company in a country with a one percent increase in GDP per capita is on average associated with a 0.00173 (0.173/100) point decrease in one-year ahead TOBQ. Moreover, as expected, firm age has a positive and significant effect on TOBQ. A company with an increase in firm age is on average associated with a 0.00076 (0.076/100) point increase in one-year ahead TOBQ. This result is not trivial, as it still amounts to 0.05% of the mean value of TOBQ.

Columns (2)-(4) inspect regional differences in the baseline analysis by adding the interaction terms CSR*Asia, CSR*EMEA, and CSR*Americas, respectively. For Asian companies, which represent 60% of the sample, the CSR coefficient of 0.169 only slightly differs from the baseline coefficient of 0.181 and the coefficient of 0.012 on CSR*Asia is not significant. Thus, the overall effect seems to accurately reflect the effect present among companies from Asian emerging markets. For companies from EMEA, which represent 20% of the sample, the CSR coefficient of 0.235 exceeds the baseline coefficient of 0.181 and the negative coefficient of -0.257 on CSR*Asia is significant. Thus, the overall effect seems not to accurately reflect the effect present among companies in EMEA, as their individual effect amounts to -0.022 (0.235-0.257). This coefficient is very likely to be indistinguishable from zero, so the overall value-enhancing effect of CSR is absent for companies in EMEA. Their presence drags down the coefficient of the overall regression across all three regions. For companies from the Americas, which represent the other 20% of the sample, the CSR coefficient of 0.104 is considerably below the baseline coefficient of 0.181 and the positive coefficient of 0.275 on CSR*Americas is significant. Thus, the overall effect seems not to accurately reflect the effect present among companies in the Americas, as their individual effect amounts to 0.456 (0.181+0.275). Their presence pushes up the coefficient of the overall regression across all three regions.

Table 6 below shows the attempt of gaining additional statistical confidence in the overall value-enhancing effect obtained in the baseline regression. As this is an unbalanced data panel with varying number of observations per period, I cannot apply the Fama and MacBeth (1973) method of determining the simple average cross-sectional coefficient and calculate a time-series standard error of this average as a robustness check employed in similar analyses (e.g. Gompers et al., 2003). The problem of the time-varying number of observations would be eliminated in a balanced data panel. However, as mentioned before, due to the limited data availability and potential attrition bias, an unbalanced panel setup is preferable for the data at hand. While this trade-off between data quality and statistical ease is certainly a limitation, I can still gain additional confidence in the cross-sectional dimension of the baseline analysis by conducting year-by-year linear OLS regressions with heteroskedasticity and autocorrelation (HAC) adjusted standard errors. As Table 6 below shows, the coefficient of CSR is positive across all seven financials years.

In five out of these seven years, the coefficients are also statistically significant. They vary from 0.134 to 0.395 and in six out of seven years, they are higher than the coefficient of 0.181 of the baseline panel regression above. The adjusted R^2 of the cross-sectional OLS regressions varies from 0.412 to 0.495 and thus remains strictly below the value of 0.651 in our baseline panel

regression above. This result shows that bundling the cross-sectional and time-series information in the data panel above increases the predictive ability of the model compared to year-by-year cross-sectional regressions by around 30-60%. The effect of all other variables is also in line with the baseline panel regression above. The only exception is leverage. While LEV has negative coefficients across all years, they are – in contrast to the panel analysis – not significant in any of the years.

Table 6: Year-by-year baseline TOBQ regressions

This table presents the year-by-year effects of corporate social performance on firm valuation for the period of 2010-2016. Firm valuation is the dependent variable and proxied by one-year ahead Tobin's q, which is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$ and collected for the financial reporting years from 2011-2017. Corporate Social Responsibility performance (CSR) is the independent variable and proxied by Thomson Reuters EIKON ESG scores as $\frac{\text{Environmental pillar score}_{i,Y} + \text{Social pillar score}_{i,Y}}{2}$ and collected over the period from 2010-2016. Control variables comprise Return on Asset (ROA) defined as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$, Leverage (LEV) defined as $\frac{\text{Total Reported Value of Debt}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$, SIZE defined as the logarithm of *Book Value of Assets*_{*i,Y*}, GDP defined as the logarithm of GDP per capita in constant 2010 USD_{*i,Y*}, and Age defined as the logarithm of current Year *Y_i* – *Year of incorporation_i*. The first two columns of this table present the financial years in which the data of the independent variables have been collected with the respective number of observed firms. In the other columns, the estimated ordinary least squares (OLS) regression coefficients of all independent variables with the corresponding heteroskedasticity and autocorrelation adjusted (HAC) standard errors in brackets below are depicted. The last column depicts the adjusted R² of the respective regression per year. * and ** indicate significance at the 5 percent and 1 percent levels, respectively. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

YEAR	N	C	CSR	ROA	LEV	SIZE	GDP	AGE	Adjusted R ²
2010	424	7.954** (0.865)	0.352** (0.151)	4.793** (1.126)	-0.125 (0.234)	-0.270** (0.035)	-0.124** (0.042)	0.0756 (0.050)	0.426
2011	470	9.638** (1.084)	0.395* (0.194)	5.763** (1.068)	-0.194 (0.274)	-0.332** (0.041)	-0.177** (0.043)	0.164** (0.059)	0.456
2012	517	8.400** (1.091)	0.134 (0.162)	7.806** (1.487)	-0.146 (0.241)	-0.278** (0.035)	-0.168** (0.051)	0.134** (0.061)	0.485
2013	551	10.437** (1.438)	0.294* (0.146)	6.989** (1.857)	-0.601 (0.310)	-0.284** (0.039)	-0.324** (0.067)	0.044 (0.062)	0.462
2014	595	8.036** (1.094)	0.055 (0.137)	7.304** (0.791)	-0.172 (0.212)	-0.209** (0.036)	-0.250** (0.047)	0.018 (0.064)	0.412
2015	618	7.530** (0.954)	0.245* (0.119)	8.824** (0.880)	-0.074 (0.168)	-0.198** (0.029)	-0.235** (0.036)	0.021 (0.056)	0.495
2016	625	8.598** (1.031)	0.320* (0.152)	8.010** (0.993)	-0.334 (0.250)	-0.224** (0.031)	-0.285** (0.045)	0.047 (0.073)	0.430

4.2.2 *The role of firm-level governance and ESG rating categories*

Table 7 below illustrates the results of several model specifications aimed at gaining a deeper understanding of the role of firm-level governance performance and the accuracy of the ESG rating methodology. First, I analyse models (1)-(3) to assess the role of firm-level governance rating performance on firm value. Column (1) shows that the overall ESG combined score has, just as the CSR proxy, a positive and significant effect on one-year ahead TOBQ. With a coefficient of 0.153, the effect is slightly weaker compared to the coefficient of 0.181 of the baseline data panel regression. A one-standard-deviation increase in normalised ESG combined score performance (0.198) of an emerging market company in this sample is – on average – associated with a 0.030 (0.153×0.198) point increase in one-year ahead TOBQ. Column (2) shows that when disseminating the ESG scores into the three individual pillar scores, each pillar yields positive and significant coefficients. The governmental pillar shows the largest coefficient of 0.147, followed by the environmental pillar with a coefficient of 0.080 and the social pillar with a coefficient of 0.065.

Column (3) shows a positive and significant coefficient of 0.141 for the governance pillar score individually. A one-standard-deviation increase in normalised governance pillar score performance (0.222) of an emerging market company in this sample is – on average – associated with a 0.031 (0.141×0.222) point increase in one-year ahead TOBQ. Compared to the mean value of 1.661 for TOBQ across the sample, this increase constitutes around 1.9% ($0.031/1.661$) of that value and thus economically significant. Compared to the 2.5% economic impact of CSR in the baseline regression, the effect of firm-level governance is weaker. Interestingly, the governance pillar alone seems to explain more variability in TOBQ than the three pillars together as well as the overall ESG combined score, as shown by the highest adjusted R^2 of 0.644 in column (3). However, the differences in adjusted R^2 amount only to around 5% and are thus marginal.

Second, I analyse the methodology employed by Thomson Reuters in constructing their ESG scores by dissecting the pillar scores into their category scores in columns (4) and (5). Column (4) splits the governance pillar into its category scores: management, shareholders, and CSR strategy. While the management and CSR strategy categories both show positive and significant (1% level) coefficients, the shareholders category has a significant (5% level) negative effect of -0.045 on firm value. The positive effect at pillar level seems to be driven by the dominance of the positive effects of management and CSR strategy, but weakened by the shareholder category. However, the adjusted R^2 in column (4) is slightly lower than in column (3), meaning that the splitting of the governance pillar does not increase the predictive power of the model.

In column (5), all category scores of the three pillars are included. In this specification, the adjusted R^2 increases by around 9% to 0.673 compared to the overall ESG combined score of 0.618 in column (1). The positive coefficients of management and CSR strategy remain consistent and significant, while the coefficient of the shareholder category remains negative with -0.025 and becomes insignificant. These results combined provide some evidence of a negative effect of the shareholder score on firm value. At least, the analysis suggests that the shareholders rating performance has no significant effect on firm valuation.

Furthermore, column (5) reveals several inconsistencies in the categories of the other pillars. Notably, the emission score of the environmental pillar has a negative and significant coefficient, while the resource use and environmental innovation scores have a positive and significant coefficient. Moreover, within the social pillar, the human rights score has a negative effect, which is significant at the 5% level. The community score is positive and significant at the 1% level, whereas the product responsibility score is insignificant. These findings are in line with the criticism of Utz (2017) and Attig et al. (2013) and suggests that the rating methodology of Thomson Reuters might not be ideal in terms of accuracy and that the common CSR proxy above is contestable.

Table 7: Firm-level governance and ESG rating categories TOBQ regressions

This table presents the unbalanced panel regression results of the effect of various Thomson Reuters EIKON ESG rating scores on firm valuation for a sample of 657 individual emerging market firms with a total of 3,800 firm-year observations. Firm valuation is the dependent variable and proxied by one-year ahead Tobin's q (TOBQ), which is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$ and collected for the financial reporting years from 2011-2017. The Thomson Reuters ESG combined score (row 7), the three pillar level scores Environmental, Social, and Governance (rows 8-10) as well as the ten category level scores Resource Use, Emissions, Environmental Innovation, Workforce, Human Rights, Community, Product Responsibility, Management, Shareholders, and CSR Strategy (rows 11-20) are the dependent variables and collected for the financial reporting years from 2010-2016. All these scores that originally range from 0-100 and are assessed relative to their industry peers, have been normalised to range from 0-1. A detailed overview of the methodology of the Thomson Reuters EIKON ESG ratings can be found in Appendix B. Control variables comprise Return on Asset (ROA) defined as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$, Leverage (LEV) defined as $\frac{\text{Total Reported Value of Debt}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$, SIZE defined as the logarithm of *Book Value of Assets*_{*i,Y*}, GDP defined as the logarithm of GDP per capita in constant 2010 USD_{*i,Y*}, and Age defined as the logarithm of current Year *Y_i* – *Year of incorporation_i*. The models are specified with Error Generalized Least Squares (EGLS) estimation with cross-section weights, allowing for heterogeneity in the cross-sections. Furthermore, the two-tailed p-values are based on robust standard errors adjusted for the presence of heteroskedasticity in the cross-sections. * and ** indicate significance at the 5 percent and 1 percent levels, respectively. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

<i>Variable</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
C	6.730**	6.761**	6.822**	6.845**	6.833**
ROA	5.571**	5.584**	5.508**	5.528**	5.925**
LEV	-0.204**	-0.149**	-0.150**	-0.160**	-0.064
SIZE	-0.192**	-0.199**	-0.204**	-0.199**	-0.208**
GDP	-0.173**	-0.169**	-0.165**	-0.174**	-0.161**
AGE	0.089**	0.089**	0.112**	0.093**	0.081**
ESG combined score	0.153**				
Environmental Pillar (E)		0.080**			
Social Pillar (S)		0.065*			
Governance Pillar (G)		0.147**	0.141**		
Resource Use					0.217**
Emissions					-0.228**
Environmental Innovation					0.203**
Workforce					-0.013
Human Rights					-0.067*
Community					0.137**
Product Responsibility					-0.013
Management				0.152**	0.119**
Shareholders				-0.045*	-0.025
CSR Strategy				0.077**	0.049**
Cross-section weights	YES	YES	YES	YES	YES
Adj. R ²	0.618	0.621	0.644	0.620	0.673

4.2.3 *The role of sell-side analysts on CSR and firm value*

The results of Table 8 below, relating to the role of sell-side analysts in the context of CSR and firm value, are based on the smaller sample size of 638 individual firms with 3504 firm-year observations. Column (1) repeats the baseline regression applied to this smaller sample. The CSR performance coefficient is positive and significant with 0.142, which is slightly below the 0.181 found for the full sample.

In column (2), CSR is dropped, and ANA is added instead. The coefficient of 0.016 on ANA is significant at the 1% level. The adjusted R^2 increases from 0.632 to 0.663. Ignoring CSR, a company with a one percent increase in the number of sell-side analysts is – on average – associated with a 0.00156 (0.156/100) point increase in one-year ahead TOBQ. In column (3), ANA is added next to CSR to the baseline model in column (1). Compared to model (1), the coefficient of CSR drops from 0.142 to 0.104 and remains significant. Compared to model (2), the coefficient of ANA only decreases marginally from 0.016 to 0.015. The adjusted R^2 increases compared to the baseline model from 0.632 to 0.654 but decreases compared to column (2) from 0.663 to 0.654. All in all, the value-enhancing effect of analyst coverage for global emerging market companies seems to be robust.

In column (4), I include an additional interaction term CSR*ANA to the model of column (3) to inspect whether the number of analysts reinforces or mitigates the positive effect of CSR on firm value. Both the CSR coefficient of 0.223 and the ANA coefficient of 0.020 show the strongest individual positive effect compared to the other specifications (1)-(3). The interaction coefficient on CSR*ANA loads negatively with -0.009 and is significant at the 5% level. Thus, the number of analysts has a mitigating effect on the positive relation between CSR performance and firm valuation, supporting the view that both analysts as external monitors in economies with weak institutions and CSR as internal strategic response to overcome institutional voids are partly substitutes for each other. Specifically, a 100 percent increase in the number of sell-side analysts covering an emerging market company in this sample on average decreases the positive effect of CSR on one-year TOBQ by 0.009 from 0.223 to 0.194. In this specification, the adjusted R^2 increases to its highest value of 0.688 within the whole inferential analysis. However, the models of the baseline analysis and the role of firm-level governance are not directly comparable in terms of adjusted R^2 , because they are based on a slightly larger sample. In summary, both CSR performance and the number of analysts individually and together are associated with higher valuations and ANA has a mitigating effect on the positive relation between CSR and firm value.

Table 8: Analyst TOBQ regressions

This table presents the additional analysis on the role of analyst coverage on the effect of corporate social performance on firm valuation for a reduced sample of 638 individual emerging market firms with a total of 3,504 firm-year observations. Firm valuation is the dependent variable and proxied by one-year ahead Tobin's q, which is defined as $\frac{\text{Market Capitalization}_{i,Y} + \text{Book Value of Assets}_{i,Y} - \text{Book Value of Equity}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$ and collected for the financial reporting years from 2011-2017. Corporate Social Responsibility performance (CSR) is the independent variable and proxied by Thomson Reuters EIKON ESG scores as $\frac{\text{Environmental pillar score}_{i,Y} + \text{Social pillar score}_{i,Y}}{2}$ and collected over the period from 2010-2016. Control variables comprise Return on Asset (ROA) defined as $\frac{\text{Net income before extraordinary items}_{i,Y}}{\text{Total Book Value of Assets}_{i,Y-1}}$, Leverage (LEV) defined as $\frac{\text{Total Reported Value of Debt}_{i,Y}}{\text{Book Value of Assets}_{i,Y}}$, SIZE defined as the logarithm of $\text{Book Value of Assets}_{i,Y}$, GDP defined as the logarithm of GDP per capita in constant 2010 USD_{*i,Y*}, and Age defined as the logarithm of current Year $Y_i - \text{Year of incorporation}_i$. Analyst coverage (ANA) is defined as the logarithm of the *Weighted – average number of sell – side analysts*_{*i,Y*} that is covering the stock of the company in the respective financial years 2010-2016. Column (1) tests the baseline regression model (5) for this reduced sample. Columns (2)-(3) test the effect of ANA on TOBQ independently of and next to CSR. Column (4) tests the effect of ANA on the effect of CSR on TOBQ by containing an interaction term CSR*ANA. The models are specified with Error Generalized Least Squares (EGLS) estimation with cross-section weights, allowing for heterogeneity in the cross-sections. Furthermore, the two-tailed p-values are based on robust standard errors adjusted for the presence of heteroskedasticity in the cross-sections. * and ** indicate significance at the 5 percent and 1 percent levels, respectively. The raw data have been retrieved for companies in the Thomson Reuters EIKON Global Emerging Market Index which have their headquarters based in a country defined as emerging market by the Morgan Stanley Capital International (MSCI) Emerging Market (EM) Index classification. Next to firms with insufficient data availability, firms with negative Book value of Equity, TOBQ >8, and financial sector firms (GICS: Banks and Insurances) have been excluded. The sample is further trimmed at the top and bottom percent across SIZE and ROA.

<i>Variable</i>	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
C	7.060**	6.991**	6.912**	6.912**
CSR	0.142**		0.104**	0.223**
ROA	5.812**	5.642**	5.659**	5.773**
LEV	-0.171**	-0.075**	-0.054	-0.013
SIZE	-0.212**	-0.239**	-0.240**	-0.241**
GDP	-0.152**	-0.117**	-0.106**	-0.114**
AGE	0.063**	0.113**	0.107**	0.109**
ANA		0.016**	0.015**	0.020**
CSR*ANA				-0.009*
Cross-section weights	YES	YES	YES	YES
Adj. R ²	0.632	0.663	0.654	0.688

5. Discussion & Limitations

First, the discussion chapter uses the statistical results described in the previous section to confirm or to reject the hypotheses developed in the literature review and provides a subjective interpretation of the results in the context of the discussed literature. This is done in a chronological structure from hypothesis one to four. Second, a critical review of the methods and concepts applied in the analysis, together with their limitations, are presented.

H1: CSR performance is positively related to firm value across global emerging markets

The baseline regression (5) in the first column of table 5 shows a positive and significant coefficient for the CSR proxy. This effect is also evident in the reduced sample for the additional analysis on the role of analysts illustrated in the first column of table 8. Furthermore, the year-by-year cross-sectional regressions with OLS estimators and HAC robust standard errors of table 6 show positive coefficients in all seven years, where five of them are statistically significant. Therefore, the positive effect of hypothesis 1 is confirmed across two samples and methodologies. In this sample of global emerging market companies, CSR performance is positively related to (subsequent) firm valuation.

However, columns (2)-(4) of table 5 reveal that this overall result masks some important regional differences. Specifically, while the effect of Asian companies is in line with the overall results, there seems to be no effect or even a negative effect between CSR and TOBQ for companies in the EMEA region and a pronounced positive effect for companies in the Americas region. This result has far-reaching consequences for the generalization of the results. First, it casts doubt on the practice of treating global emerging market companies as a group due to their institutional differences. Second, it illustrates the ESG data problem in emerging markets. While it would be interesting to further inspect the factors driving the diverging results in EMEA and the Americas, both regions individually represent only 20% of the already relatively small sample. Thus, conducting separate empirical analyses with high statistical power is difficult.

My main finding of the baseline regression provides empirical evidence for and is consistent with the resource-based view of CSR and is the first to inspect the CSP and CFP debate across global emerging markets. Emerging markets are generally characterized by weaker market supporting institutions supporting economic exchanges. This often results in governance

concerns and ultimately higher risk of expropriation of minority shareholders. Consequently, economic exchanges undertaken of and with these companies endure higher transaction costs and they suffer from worse access to resources. To prevent undue transaction costs, emerging market firms must take strategic actions to mitigate these concerns. My analysis shows that acting responsibly is such a strategic response, as emerging market companies across the globe with superior CSR performance enjoy higher firm valuations. As such, it lends support to the recent findings of El Ghouli et al. (2017), that CSR initiatives reduce transaction costs and improve access to resources in countries with weak institutions, which increases firm value. At the same time, regional differences persist, and the above dynamics probably hold for emerging market companies across Asia and the Americas but might not hold for companies in the EMEA region.

In line with El Ghouli et al. (2017), I find a positive relationship between profitability and firm value. In fact, there is strong empirical evidence for this relationship, as ROA yields a positive and significant coefficient across the entire baseline and additional analyses. As expected, firms that are more profitable have more scope to pay dividends, invest in necessary R&D projects to ensure future growth and to sustain adverse market movements, so they enjoy higher valuations. Further in line with El Ghouli et al. (2017), I find milder evidence for a negative relationship between leverage and subsequent firm valuation. LEV shows a negative and significant coefficient in almost all panel regression specifications across the baseline and additional analyses. However, although coefficients of the year-by-year regressions in table 6 are negative in all years, they are not significant. All in all, the analyses support the rationale that an increase in leverage limits the flexibility of management decisions and renders firms to be more vulnerable to market shocks, resulting in lower valuation.

In line with El Ghouli et al. (2017), I find strong evidence that smaller emerging market companies have higher firm valuations. Just like for ROA, this relationship is significant across the entire baseline and additional analyses. As expected, larger firms have more limited investment opportunities and lower future growth prospects. Lower expected future cash flows translate into lower firm valuations. In line with Gompers et al. (2003), I find relatively strong empirical evidence for a positive effect of firm age on firm value in this emerging market sample. AGE shows a positive and significant coefficient in all panel regressions and in two out of seven year-by-year OLS regressions. As expected, more established firms in emerging markets can draw on a larger history of treating stakeholders fairly and thus mitigate concerns about expropriation, which results in higher firm valuation.

In contrast to El Ghouli et al. (2017), I find strong evidence for a negative relationship between economic development proxied by the logarithm of GDP per capita and TOBQ for my sample of exclusively emerging market companies. To illustrate, the observation with the lowest GDP per capita belongs to India with USD 1,344, while the observation with the highest GDP per capita belongs to Qatar with USD 70,306 (both in constant 2010 USD). While both are being classified as emerging markets according to the MSCI EM index scheme used, the average person in Qatar produces more than 50 times as much GDP as an average person in India. This illustrates the wide range of economic development across the countries MSCI defines as emerging. At the same time, GDP grew by 46% during the sampling period in India and fell by 7% in Qatar. The emerging countries at the bottom of the economic development have been shown to yield higher growth potential than almost fully developed countries. Strong income growth drives domestic demand and thus expected growth of domestic companies, which results in higher expected future cash flows and is ultimately reflected in higher firm valuations. Therefore, the wide dispersion in development levels in the MSCI classified emerging markets with their different associated growth prospects provide rationale for this negative effect.

H2: Firm-level governance rating performance has a positive effect on firm value across global emerging markets

In line with the theoretical suggestion of Ding et al. (2010) that firm-level governance is especially important in emerging markets plagued by institutional voids and the empirical finding of Kim et al. (2014) that in the U.S., governance ratings are associated with lower firm risk, I find that across emerging market companies, governance rating performance is positively associated with subsequent firm valuation. The governance pillar in table 7 shows a positive and significant coefficient when regressed with the other two pillars in column (2) as well as when regressed separately in column (3). Thus, the analysis confirms hypothesis 2.

At the same time, I find some evidence that the category scores incorporated in the governance pillar are based on the traditional developed markets governance model dominated by PA conflicts (Jensen and Meckling, 1976), but fail to properly incorporate the institutional environment of emerging markets which results in the dominance of PP conflicts (Young et al., 2008). When regressing the separate categories of the governance pillar on TOBQ in column (4) of table 7, the shareholders score has a significant negative coefficient, but the adjusted R^2 decreases. When regressing all category scores on TOBQ in column (5), this coefficient is still negative, but insignificant. These results favour the view that unlike attested for developed

markets, more power of shareholders vs. manager across global emerging markets is not associated with better firm performance, or even detrimental to firm performance (e.g. Faccio et al., 2001). As explained above, emerging market companies are often dominated by majority shareholders belonging to influential families or the state. In that context, even higher shareholder power could for example mean that these majority shareholders steer business according to their personal interests and might put affiliated state officials or family members in the board of directors, rather than acting in the interest of all shareholders. This is likely to lead to poor strategic choices or expropriation of minority shareholders and ultimately results in lower firm valuations.

Columns (3)-(4) of table 7 show that the CSR strategy score, which TR includes in the governance pillar and which is therefore not included in my CSR proxy, is positive and significant. As explained before, CSR strategy refers for example to the establishment of a sustainability committee, voluntarily disclosures, or sustainability audits. As such, a positive and significant effect of this category score might be regarded as additional confirmatory evidence for hypothesis 1. However, it also gives rise to criticism regarding the common practice in academic studies of using the average of the environmental and social pillars as CSR proxy, as this category score is part of the governance pillar but seems to capture important parts of CSR activity.

Furthermore, column (4) of table 7 provides evidence in line with the criticism of Utz et al. (2017) and Attig et al. (2013), that some category scores yield contradictory signs when compared to their pillar scores. While there is a theoretical rationale for the negative effect of the shareholder score on firm value in emerging markets, I find no such explanation for the negative and significant effects of the resource use score and the human rights score on firm valuation. Simultaneously, disaggregating the scores into all categories yields additional predictive power, as the adjusted R^2 of 0.673 is the highest across the different model specifications. Thus, the inconsistent category scores can explain more variation in firm value than the pillar scores and the ESG combined score. Thus, practitioners and academics need to be careful when using TR ESG scores in their investment decisions. The CSR proxy based on the TR methodology might not be ideal as the environmental and social pillars are not capturing important parts of CSR activity contained in the governmental category CSR strategy. Furthermore, lower-level category scores are in some cases inconsistent with the pillar scores.

H3: Analyst coverage has a positive effect on firm value across global emerging markets

Table 8 provides strong evidence for a positive effect of the number of sell-side analysts on firm valuation across global emerging markets and thus confirms hypothesis 3. This positive effect is consistent across all three model specifications in columns (2)-(4). It only varies marginally between 0.015 and 0.020 and is significant at the 1% level. In line with Chung and Jo (1996) and Yu (2008), this result suggests that equity analysts act as an external monitor and help reducing agency costs, disciplining managers and steering investor attention towards important information. The results contrast the view of Chan and Hameed (2006), which states that analysts fail to produce firm-specific information in emerging economies that is being valued by the market.

H4: Analyst coverage amplifies the positive effect of CSR on firm value across global emerging markets

Column (4) of table 8 shows a negative coefficient of -0.009 on the interaction term of CSR*ANA and adjusted R^2 increases to 0.688. This coefficient is significant at the 5% level, so I reject hypothesis 4. Instead, analyst coverage mitigates the effect of CSR on firm value across global emerging markets. This mitigating effect can be explained by the rationale of Jo and Harjoto (2014), who state that while analysts are primarily concerned with financial information, they provide indirect but additional social pressure on firms to reduce their irresponsible activities. While their analysis was confined to a sample of U.S. firms, this seems to hold true across global emerging markets as well. The results suggest that analysts perform to a certain degree the same task as ESG rating agencies, i.e. signalling trust to the marketplace that the covered company is well governed and bears little risk of minority shareholder expropriation.

At the same time, the individual positive effects of CSR and ANA on firm value found in column (3) of table 8 remain significant when including the interaction term CSR*ANA in column (4). Thus, despite ANA mitigating the positive effect of CSR on firm value, both information intermediaries individually add value to the firm. This is supportive for the claim of Berk and DeMarzo (2011), that the primary role of equity analysts is to uncover any financial reporting irregularities, rather than providing elaborate ESG information. Consequently, while analysts seem to provide some additional social pressure on firms to reduce their irresponsible

activities and signal trust in the proper governance of the firm, they rather complement ESG rating agencies by focussing on financial reporting irregularities.

There are several limitations I acknowledge regarding my empirical analysis. First, my classification of emerging market countries based on the MSCI EM index methodology is very broad. As mentioned earlier, economic development, when measured as GDP per capita in constant 2010 USD ranges from USD 1,344 in India to more than 50 times that value, i.e. USD 70,306, in Qatar. Despite being widely used in academic research, this classification scheme is contestable and future research could define emerging markets more narrowly to produce additional confidence in the results obtained. Furthermore, the descriptive analysis in table 3 shows that the companies covered do have an average and median book value of assets of around USD 5.3bn, have been existing on average for 35 years, and are being followed – on average – by 15 sell-side analysts. Thus, my results could be limited to relatively large and mature companies rather than to hold for the entire spectrum of emerging market firms and should therefore be treated with caution.

Furthermore, the inferential analysis of table 5 shows that the overall positive effect of CSR performance on firm value of the baseline regression is driven by the dominant 60% share of Asian companies in the sample. The effect seems to be considerably stronger for companies in the Americas and non-existent for companies in EMEA. As such, the treatment of global emerging markets as a group is contestable and further research on the underlying reasons for the regional differences is needed. Moreover, I find and recognise drawbacks of using the common CSR proxy of taking the average of the environmental and social pillar scores in table 6. Nevertheless, I rely on this proxy in the other analyses. Therefore, my results only hold to the extent to which this proxy really does represent CSR performance. Besides, as mentioned before, there is a lack of data on institutional shareholdings. Consequently, this analysis misses to inspect the role of this important external governance mechanism.

Furthermore, a potentially endogenous relationship between CSR and TOBQ is a concern in my analysis. Endogeneity broadly refers to situations in which an explanatory variable is correlated with the error term, which can inflict bias in regression estimates and is mostly caused by omitted variables, reverse causality, or simultaneity. Specifically, endogeneity would arise due to unobservable heterogeneity from omitted firm-specific variables that are correlated with CSR and TOBQ. Endogeneity from reverse causality would arise when superior financial performance causes firms to improve their CSR performance, rather than superior CSR

performance resulting in higher firm valuation. Endogeneity from simultaneity would arise when CSR and TOBQ are jointly determined, i.e. CSR performance and firm value simultaneously affect each other (Dimson et al., 2015).

My research design helps to mitigate concerns about omitted firm-level heterogeneity by including numerous control variables identified in similar previous studies that tested for endogeneity. Nevertheless, it is possible that omitted country-level factors affect both CSR and TOBQ and drive the results. More advanced econometrical methods of recent studies (e.g., El Ghoul et al., 2011; Kim et al., 2014; El Ghoul et al., 2017), such as instrumental variable techniques or dynamic panel generalized methods of moments (GMM) estimations could be employed to further rule out omitted variable concerns. However, employing these methods extends the scope of this thesis and I recognise that as a limitation of my analysis. The same omitted variable problem also applies to the additional analyses regarding the relationship of the firm-level governance and TOBQ as well as ANA and TOBQ.

To address the reverse causality and simultaneity problems, I follow previous research (e.g. Kim et al., 2014; El Ghoul et al., 2017) and use a one-period lag between the dependent variables including the CSR performance proxy and the independent variable TOBQ. Nevertheless, this practice is imperfect since CSR scores are quite sticky across years. Besides, while the EGLS specification of my unbalanced panel regression solves the problem of heteroskedasticity in the remainder error term of the cross-section fixed effect specification and reduces the Jarque-Bera statistic, the normality assumption of the residuals is still slightly violated.

6. Conclusion

The conclusion chapter is structured as follows. First, it synthesizes the context of the academic debate around which the analysis revolves and points out how the findings of the main and additional analyses contribute to the respective existing literature streams and what implications they have on future academic research. Second, recommendations for practitioners are derived. Third, motivations for future research are presented. Limitations have already been stated on the previous two pages and are therefore not repeated in this chapter.

While there is a large body of research on the CSP and CFP debate in developed markets producing mixed results, research on the CSP and CFP debate in emerging markets is scarce. So far, recent studies merely relate to stock price crash risk and are confined to individual emerging markets (Zhang, Xie, and Xu, 2016; Lee, 2016). CSR research on emerging markets as a group is absent. This is probably due to the failure to recognize institutional commonalities across global emerging market companies, ESG data scarcity in emerging markets and the extremely volatile capital markets in the last decade steering the focus on risk characteristics. From an academic perspective, the main analysis of my thesis contributes to the current stance of research by revitalizing the traditional deadlocked CSP and CFP debate in developed markets by focussing on emerging markets and on the so far untouched post-financial crisis period of 2010-2016.

The rationale to conduct research across global emerging markets as a group is an extension of the link between institutional theory, transaction cost theory and the CSP and CFP debate recently found by El Ghouli et al. (2017). The absence of market-supporting institutions in an economy often results in governance concerns and ultimately higher risk of expropriation of minority shareholders of companies in that economy. Consequently, economic exchanges undertaken of and with these companies endure higher transaction costs and they suffer from worse access to resources. El Ghouli et al. (2017) claims that the traditional performance channels proposed by the resource-based view of CSR like superior management incentivization, moral capital, information quality, transparency, and trust, are expected to work particularly well in the presence of institutional voids. They find that CSR constitutes a strategic response to reduce the undue transaction costs associated with the absence of institutions and creates necessary resources which ultimately result in higher firm valuation. As global emerging markets as a group generally have relatively weak institutions (e.g. Meyer et al.,

2009), I posit that CSR performance across global emerging market companies is positively related to firm valuation.

Indeed, I find that CSR performance proxied by the average of the environmental and social pillar scores of the Thomson Reuters EIKON ESG rating database positively relates to firm valuation proxied by one-year ahead Tobin's q (TOBQ). Specifically, a one-standard-deviation increase in normalised CSR score performance of an emerging market company in this sample is – on average – associated with a 0.042-point increase in one-year ahead TOBQ. However, this overall result is largely driven by the Asian companies representing around 60% of the sample. Companies located in EMEA do not show any value enhancing effect of CSR and companies located in the Americas show an especially strong value enhancing effect of CSR.

My main contribution is to enhance the current stance of research by revitalizing the deadlocked CSP and CFP debate in developed markets. First, my study is the first study to provide empirical evidence for the resource-based view of CSR in the so far untouched post-financial crisis period of 2010-2016. Second, it is the first study that examines the link between CSR performance and firm value across global emerging markets. It implies that future research should recognize that in contrast to earlier suggestions (e.g. Baughn et al., 2007), emerging economies are sensitive about CSR issues and that CSR performance is value-enhancing in those markets. At the same time, it shows that large regional differences in this link do exist and that there is a need for more extensive ESG data to conduct meaningful statistical analyses on regional level. Furthermore, it provides confirmatory evidence for the proposed link between institutions and transaction costs proposed by El Ghouli et al. (2017) and implies that future research on CSR should recognize that the effectiveness of CSR performance channels depends on the institutional context of the economy in which a company is located in.

The additional analysis on firm-level governance scores contributes to the corporate governance and institutional theory literature. In line with suggestions that the need for effective internal corporate governance is especially high in countries where institutional voids inhibit market oversight or external governance (Ding et al., 2010), I find a positive effect of firm-level governance scores on firm valuation. At the same time, further empirical tests suggest that Thomson Reuters ESG scores are based on the traditional developed markets governance model dominated by PA conflicts (Jensen and Meckling, 1976), but fail to properly incorporate the institutional environment of emerging markets which results in the dominance of PP conflicts (Young et al., 2008). The negative effect of the shareholders category score supports the view

of Faccio et al. (2001) that power towards shareholders vs. managers in emerging markets increases PP conflicts instead of solving PA conflicts.

It implies for future research on corporate governance, that institutions, amongst other factors, effect the governance requirements of companies and that these dynamics potentially prevent generic governance scores from being universally applicable across different countries and regions. Furthermore, the analysis finds further evidence in line with the criticism of Utz et al. (2017) and Attig et al. (2013), that some category scores yield contradictory signs compared to their pillar scores. For studies in both developed and emerging markets, academics should recognize that the commonly used CSR proxy of taking the average of the environmental and social pillar scores does not incorporate the CSR strategy component attributed to the governance pillar even though it should conceptually include it, and that analyses on category score level might produce misleading results.

Finally, this thesis contributes to the CSP and CFP debate by introducing another previously untouched aspect which relates to the information intermediary role of ESG rating agencies, i.e. analyst coverage. In line with Chung and Jo (1996) and Yu (2008), who suggest that equity analysts act as an external monitor and help reducing agency costs, disciplining managers, and steering investor attention towards important (financial) information, I find strong evidence for a positive effect of the number of sell-side analysts on firm valuation (next to CSR). I further find empirical support for a mitigating impact of analyst coverage on the positive effect of CSR and firm value, while the individual coefficients remain positive and significant. This implies that while analysts seem to provide some additional social pressure on firms to reduce their irresponsible activities and signal trust in the proper governance of the firm, they rather complement than substitute ESG rating agencies as information intermediaries by focussing on financial reporting irregularities. It implies that future research on financial performance or transaction costs in emerging markets should recognize that both analyst coverage and CSR performance help reduce transaction costs and create resources that are valued by the market.

From a practitioner's perspective, my findings have several implications on portfolio managers of institutional investors and managers of emerging market companies. When allocating capital to equities of emerging market companies, portfolio managers should pick stocks of companies with strong future CSR capabilities, large analyst coverage, and conduct firm-level governance analyses considering PP problems rather than (relying on generic governance scores based primarily on) PA problems. Alternatively, the findings could be an artefact of portfolio managers already incorporating these factors in their stock picking process. If they provide

immense amounts of capital to socially responsible emerging market companies that are largely covered by analysts, they drive the market values of these companies, which is reflected in Tobin's q . Moreover, the analysis implies that practitioners who rely on Thomson Reuters EIKON ESG scores in their investment decisions should use them with caution, as governance scores based on a developed corporate governance model might be inaccurate for assessing the corporate governance quality of emerging market companies.

For managers of emerging market companies, the analysis is relevant for their strategic decision-making process, growth strategies, and capital budget allocations. My support for the resource-based view of CSR calls on managers in emerging markets to strive for more CSR excellence, which necessitates a strategic planning process. Managers of emerging market firms seeking capital to finance identified growth opportunities might be well advised to increase performance and communication of their CSR commitments to attract the desired capital. Finally, the results immediately effect the capital budgeting process for managers deciding how much resources to commit to CSR related activities.

Beyond tackling the issues immediately addressing the limitations presented in the previous section (especially endogeneity), this study opens the gateway to a broad future research area. As mentioned before, it is a pioneering study in inspecting the CSP and CFP debate in the context of global emerging markets. Compared to previous research using data panels, the sample construction of an unbalanced data panel with as much as 3,800 firm-year observations shows that the data availability reached a tipping point where it is possible to conduct meaningful analyses. Thus, numerous previous studies on CSR could be inspected in the context of global emerging markets. One recent example would be to inspect the relationship between CSR and stock price crash risk for this sample.

Besides, further research could be dedicated to an elaborate investigation of the regional differences between the value relevance of CSR that have been revealed in this study. However, more data would be needed than is currently accessible through Thomson Reuters EIKON. Furthermore, future research could be conducted to find better proxies for CSR by for example trying to combine the CSR strategy component score of the governmental pillar with the environmental and social pillars. Alternatively, there might be opportunities to construct better CSR proxies from different databases. On top of that, future research could be conducted on institutional shareholdings as another external monitoring mechanism across global emerging markets.

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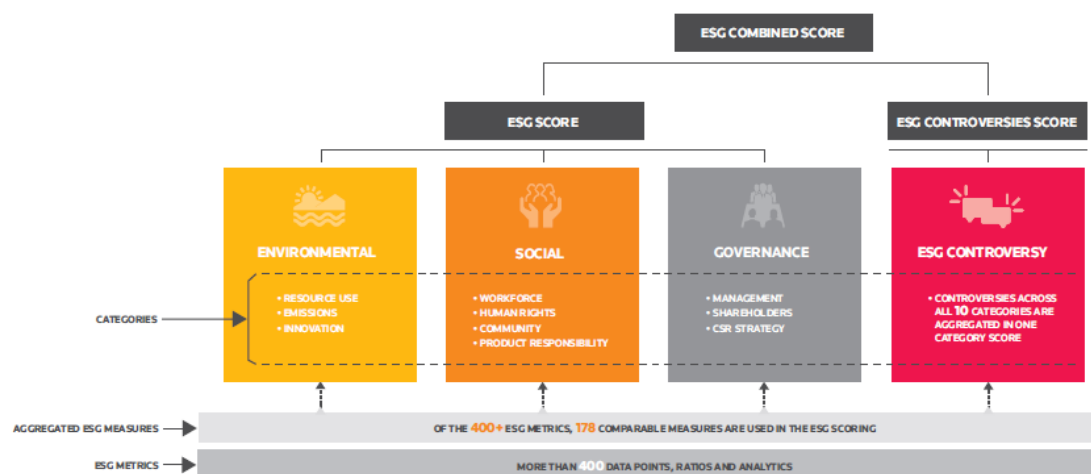
Appendix

Appendix A: MSCI EM region clustering

MSCI ACWI & FRONTIER MARKETS INDEX										
MSCI ACWI INDEX						MSCI EMERGING & FRONTIER MARKETS INDEX				
MSCI WORLD INDEX			MSCI EMERGING MARKETS INDEX			MSCI FRONTIER MARKETS INDEX				
DEVELOPED MARKETS			EMERGING MARKETS			FRONTIER MARKETS				
Americas	Europe & Middle East	Pacific	Americas	Europe, Middle East & Africa	Asia	Americas	Europe & CIS	Africa	Middle East	Asia
Canada United States	Austria Belgium Denmark Finland France Germany Ireland Israel Italy Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom	Australia Hong Kong Japan New Zealand Singapore	Brazil Chile Colombia Mexico Peru	Czech Republic Egypt Greece Hungary Poland Qatar Russia South Africa Turkey United Arab Emirates	China India Indonesia Korea Malaysia Pakistan Philippines Taiwan Thailand	Argentina	Croatia Estonia Lithuania Kazakhstan Romania Serbia Slovenia	Kenya Mauritius Morocco Nigeria Tunisia WAEMU ¹	Bahrain Jordan Kuwait Lebanon Oman	Bangladesh Sri Lanka Vietnam
MSCI STANDALONE MARKET INDEXES ¹										
				Saudi Arabia		Jamaica Panama ² Trinidad & Tobago	Bosnia Herzegovina Bulgaria Ukraine	Botswana Ghana Zimbabwe	Palestine	

Retrieved on 10.09.2018 from <https://www.msci.com/market-classification>

Appendix B: Thomson Reuters EIKON ESG score methodology



Retrieved on 14.10.2018 from

<https://www.refinitiv.com/content/dam/gl/en/documents/methodology/esg-scores-methodology.pdf>

Appendix C: Variable overview

General company information	<ul style="list-style-type: none"> • RIC (Reuters Identifier code) • Unique Company Name • TRBC Business Sector Name • Country • Region: Asia, Americas, EMEA (see Appendix A)
Market & Fundamental data	<p>All variables are downloaded in USD for comparability:</p> <ul style="list-style-type: none"> • $TOBQ_{i,Y} = \frac{Market\ Capitalization_{i,Y} + Book\ Value\ of\ Assets_{i,Y} - Book\ Value\ of\ Equity_{i,Y}}{Book\ Value\ of\ Assets_{i,Y}}$ • $ROA_{i,Y} = \frac{Net\ income\ before\ extraordinary\ items_{i,Y}}{Total\ Book\ Value\ of\ Assets_{i,Y-1}}$ • $SIZE_{i,Y} = \ln(Book\ Value\ of\ Assets_{i,Y})$ • $LEV_{i,Y} = \frac{Total\ Reported\ Value\ of\ Debt_{i,Y}}{Book\ Value\ of\ Assets_{i,Y}}$ • $GDP_{i,Y} = \ln(\text{respective GDP per capita in constant 2010 USD}_{i,Y})$ • $AGE_{i,Y} = \ln(Y_i - Year\ of\ incorporation_i)$ • $ANA_{i,Y} = \ln(Weighted - average\ number\ of\ sell - side\ analysts_{i,Y})$
ESG data	<p>All raw scores are relative the respective firm's industry peers and on a scale from 0-100. I normalised them to range between 0-1.</p> <ul style="list-style-type: none"> • $CSR_{i,Y} = \frac{Environmental\ pillar\ score_{i,Y} + Social\ pillar\ score_{i,Y}}{2}$ <p>Environmental pillar categories:</p> <ul style="list-style-type: none"> • $Resource\ Use_{i,Y}, Emissions_{i,Y}, Environmental\ Innovation_{i,Y}$ <p>Social pillar categories:</p> <ul style="list-style-type: none"> • $Workforce_{i,Y}, Human\ Rights_{i,Y}, Community_{i,Y}, Product\ Responsibility_{i,Y}$ <p>Governance pillar categories:</p> <ul style="list-style-type: none"> • $Management_{i,Y}, Shareholders_{i,Y}, CSR\ strategy_{i,Y}$

Appendix D: Breusch-Pagan test for Random Effects

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided
(all others) alternatives

	Cross-section	Test Hypothesis Time	Both
Breusch-Pagan	3690.646 (0.0000)	47.80646 (0.0000)	3738.452 (0.0000)
Honda	60.75069 (0.0000)	6.914222 (0.0000)	47.84632 (0.0000)
King-Wu	60.75069 (0.0000)	6.914222 (0.0000)	12.84754 (0.0000)
Standardized Honda	60.90924 (0.0000)	7.861114 (0.0000)	35.20290 (0.0000)
Standardized King-Wu	60.90924 (0.0000)	7.861114 (0.0000)	10.31710 (0.0000)
Gourieriou, et al.*	--	--	3738.452 (< 0.01)

*Mixed chi-square asymptotic critical values:

1%	7.289
5%	4.321
10%	2.952

Appendix E: Heteroskedasticity and Normality in the fixed effects OLS model

Dependent Variable: RESID^2

Method: Panel Least Squares

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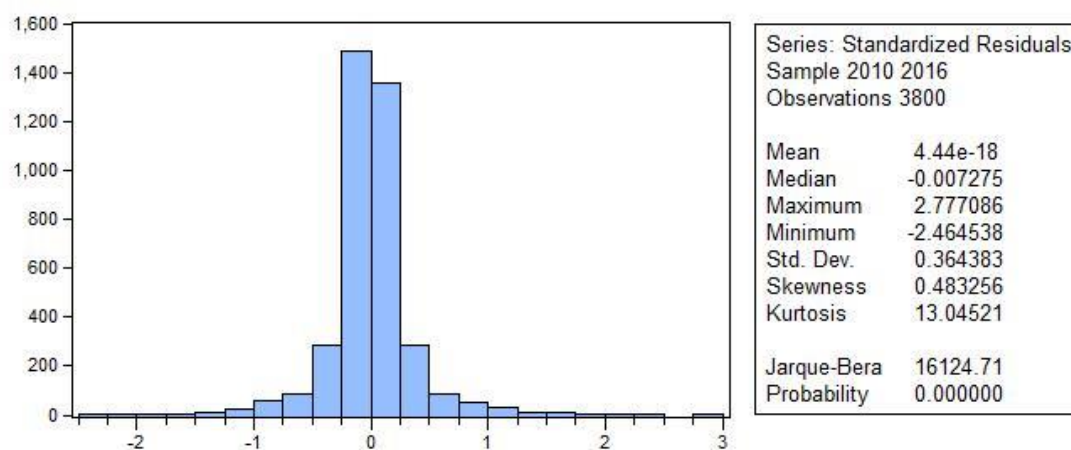
Sample: 2010 2016

Periods included: 7

Cross-sections included: 657

Total panel (unbalanced) observations: 3800

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.135483	0.085856	13.22538	0.0000
CSR^2	0.041158	0.033243	1.238071	0.2158
ROA^2	3.472582	0.264709	13.11850	0.0000
LEV^2	-0.271950	0.072735	-3.738925	0.0002
SIZE^2	-0.001546	0.000137	-11.24631	0.0000
GDP^2	-0.003426	0.000466	-7.349656	0.0000
AGE^2	0.003248	0.001799	1.805608	0.0711
R-squared	0.118056	Mean dependent var		0.132740
Adjusted R-squared	0.116661	S.D. dependent var		0.460751
S.E. of regression	0.433042	Akaike info criterion		1.165875
Sum squared resid	711.2829	Schwarz criterion		1.177375
Log likelihood	-2208.163	Hannan-Quinn criter.		1.169962
F-statistic	84.62148	Durbin-Watson stat		1.240603
Prob(F-statistic)	0.000000			



Appendix F: Heteroskedasticity and Normality in the WLS model

Dependent Variable: RESID^2

Method: Panel Least Squares

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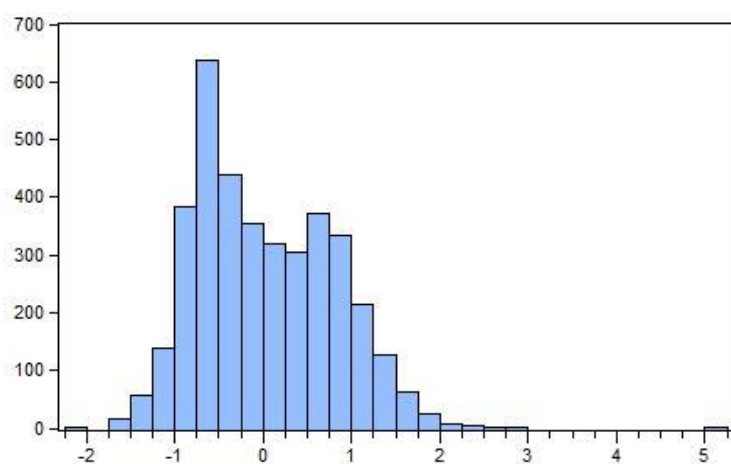
Sample: 2010 2016

Periods included: 7

Cross-sections included: 657

Total panel (unbalanced) observations: 3800

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.80E+41	1.77E+41	2.144670	0.0320
CSR^2	-5.23E+40	6.87E+40	-0.761587	0.4464
ROA^2	1.57E+41	5.47E+41	0.286719	0.7743
LEV^2	-1.67E+40	1.50E+41	-0.111184	0.9115
SIZE^2	-5.03E+38	2.84E+38	-1.769385	0.0769
GDP^2	-1.36E+39	9.63E+38	-1.416655	0.1567
AGE^2	1.52E+39	3.72E+39	0.408673	0.6828
R-squared	0.001958	Mean dependent var		1.94E+40
Adjusted R-squared	0.000379	S.D. dependent var		8.95E+41
S.E. of regression	8.95E+41	Akaike info criterion		196.0343
Sum squared resid	3.04E+87	Schwarz criterion		196.0458
Log likelihood	-372458.3	Hannan-Quinn criter.		196.0384
F-statistic	1.240132	Durbin-Watson stat		1.409558
Prob(F-statistic)	0.282280			



Series: Standardized Residuals	
Sample 2010 2016	
Observations 3800	
Mean	0.016309
Median	-0.097800
Maximum	5.007468
Minimum	-2.115434
Std. Dev.	0.765271
Skewness	0.400008
Kurtosis	2.743237
Jarque-Bera	111.7759
Probability	0.000000